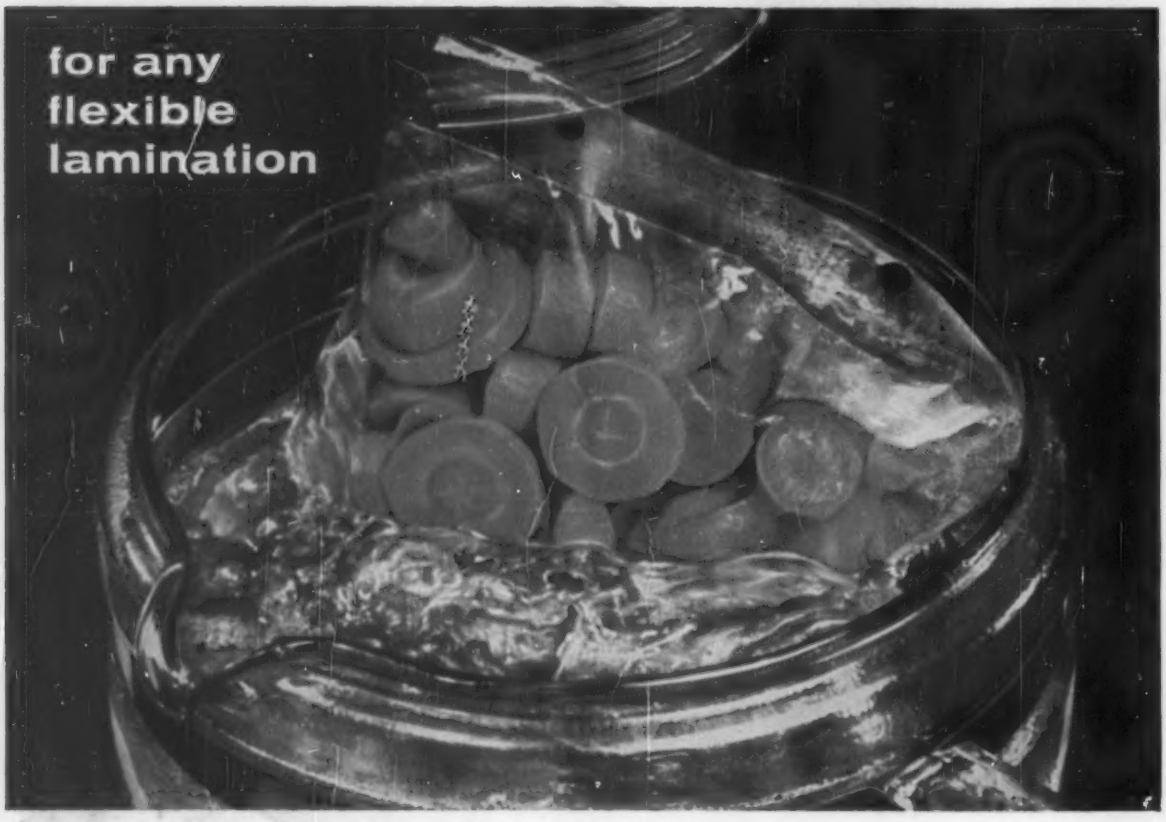
MODERN PACKAGING

JANUARY 1957

The can industry: what it is, how it works and where it fits in packaging. First of a new series.

COMPLETE CONTENTS p. 2

IMAGINATIVE PACKAGING: Carrots that can be cooked in boilable pouch of Mylar laminated to polyethylene.



ADHESIVE BONDS —from boilproof to zeroproof

MATCH ANY NEED in flexible packaging. With rubber cements, lacquers and emulsions for any lamination from boilproof pouches of "Mylar"* to polyethylene—to zeroproof wrappers of foil to paper.

SELECT YOUR PROPERTIES in laminating film to film. Or film, paper or acetate to foil. These adhesives meet most any requirement. Bond tough or flexible. Withstand heat sealing and vacuum packaging. They're free of taste, color, odor. Field tested. In full production.

WHICH SHOULD YOU USE — An Adhesive Specialist from National can help you decide. By analyzing the requirements of each package you have in mind.

PRIMERS FOR EXTRUSION COATING

Improve adhesion and lower extrusion temperatures—with National's primers for extrusion coating polyethylene on films, foil and paper. They're new. Ask about them.

* DuPont's Reg. Trade Mark for its brand of polyester film.

RESYNS® National ADHESIVES

NATIONAL STARCH PRODUCTS INC.

270 Madison Avenue, New York 16 • 3641 So. Washtenaw Avenue, Chicago 32 • 735 Battery Street, San Francisco 11

CONTINENTAL *Landmarks*

Periodic progress reports of interest and value to the packing field

New Savorlock cans for hygroscopic products combine long shelf life and positive reseal

Intended to spur impulse sales of instant coffee and other "hard-to-hold" products, Continental's newly announced Savorlock cans are believed to be the first of their category to be made on high-speed lines for maximum economy.

Eye appeal is provided by brilliant lithography, plus unusual package proportions, established on the recommendation of a well-known industrial designing firm. The two sizes — 204 x 315 and 305 x 507 — are pleasing in appearance, while getting as many units as possible into each running foot of shelf space. Additionally, the lightweight cans stack securely.

Intensive store evaluations show no appreciable moisture pickup four months after stocking. After tamper-proof glassine inner seal is broken, the lock top gives a positive reseal in day-to-day home use.

Supermarket time studies reveal it takes a shopper an average of 4 seconds to choose an item from a grocery shelf. New Savorlock cans, in 2 and 6-oz. capacity, are specifically designed for today's impulse buying.

PERTINENT DATA ON THE NEW Savorlock CANS

The full opening and positive resealing features recommend Savorlock for almost any powdered or granulated product, food or non-food. Evaluations have been confined to instant coffee as being one of the most hygroscopic of food products now marketed. Other products for which tests can be arranged include:

- Soluble tea and tea bags
- Chocolate and cocoa
- Non-fat dry milk
- Dehydrated soups
- Prepared chocolate mix
- Baking powder and soda
- Spices
- Vegetable flakes
- Brown and confectionery sugar
- Peanut butter
- Pharmaceuticals
- Laundry starch, bleach

Also instant gravy mix, bouillon cubes, powdered egg whites, dry coconut, prepared dips for fried foods, bread crumbs, hard candy, cookies, dessert powders, dry rice, instant potatoes, etc.

CONTINENTAL CAN COMPANY

Eastern Division: 100 E. 42nd St., New York 17
Central Division: 135 So. La Salle St., Chicago 3
Pacific Division: Russ Building, San Francisco 4
Canadian Division: 5593 Pare St., Montreal, Que.

MODERN PACKAGING®

January 1957
Vol. 30 No. 5

87 **Retrospect and prospect**
Developments that loom largest out of 1956 and those of greatest promise for the year ahead.

94 **Big 'M' for Motorola**
Stylized initial for radio and TV cartons forms the basis for company-wide identity program.

97 **Zip-foil for soap**
Camay adds tear-tape convenience to foil wrap.

98 **Packaged 'coffee break'**
Nestle's vending-machine packs suggest vast new possibilities in high-speed, low-cost unit packaging.

102 **Cans**
Supplier-Industry Survey. Forty billion containers a year and pushing steadily forward.

107 **Triple-use package**
Shipping case for plastic dinnerware is also a store display and a salesman's kit.

108 **Design Histories**
Polyethylene eye-tip tube . . . Virgin Island handcraft . . . foil for Canadian oleo . . . Corday family.

110 **Polyethylene clinch pack**
Non-adhesive way of attaching paperboard to plastic film bag for soft goods.

112 **Square jars**
For Stokely's pickle line, shape saves shelf space, is better for shipping, stacking, display.

114 **Packaging Pageant**
Toy in egg-type carton . . . foil label for shortening . . . other selections of the month.

118 **New flexibility for sheet wraps**
Springs Mills makes economical use of one size of wrap for all fold sizes.

120 **Packaging's value: $15 billion**
New figures from Department of Commerce give basis for estimate covering all packaging expenditures.

122 **Display Gallery**
Bras in flower cart . . . flashing-lantern unit . . . Piel brothers in 3D . . . "white-glove" promotion.

126 **Header first**
Machine applies saddle label to bag, then fills it with drapery hardware from the bottom.

130 **Slide-track thermoform**
High-speed edge forming gives Carvel Hall sturdy acetate-covered package with slide-out paperboard base.

135 **Double life**
Key-opening candy can has strip-off label and polyethylene cover, re-usable as a canister.

Technical

137 **Radiotracer studies of PVA—I**
First of two reports on polyvinyl alcohol in packaging applications. *By H. K. Inskip and J. H. Peterson.*

141 **Cathode-ray irradiation of cellophanes**
Modified coatings may be necessary for use with irradiation-processed foods. *By M. Karel and B. E. Proctor.*

150 **Questions and Answers**

Departments

154 **Equipment and materials**
164 **Plants and people**
180 **For your information**
185 **Manufacturers' literature**
188 **U. S. patents digest**
218 **Index to advertisers**

37 **Background for packaging.** *Notes, quotes and comments.*

Modern Packaging Executive and Editorial Offices, 575 Madison Avenue, New York 22, N.Y.

Modern Packaging published monthly by Modern Packaging Corp., at Emmett St., Bristol, Conn. Modern Packaging Encyclopedia Issue published as second issue in November by Packaging Catalog Corp. at Emmett St., Bristol, Conn. Second-class mail privilege authorized at Bristol, Conn. Subscription rates (including Modern Packaging Encyclopedia Issue, which is not sold separately), payable in U.S. currency: In U.S., its possessions, and Canada, 1 year $7, 2 years $12, 3 years $17; Pan-American countries, 1 year $10, 2 years $17, 3 years $24; all other countries, 1 year $30, 2 years $35, 3 years $50. Single copies 75 cents each (Show Issue, $1) in U.S., its possessions, and Canada; all other countries $2 (Show issues, $2.50).

® Reg. U.S. Pat. Off.

Save many packaging dollars—in either high or low production—with this REDINGTON Adjustable Vertical Cartoning Machine... *at low initial cost*

This versatile, rugged REDINGTON handles the widest range of carton sizes of any machine of its type. Each of its many other features has been similarly designed to give maximum production advantages in many different assignments. Exceptional flexibility, steady, trouble-free performance, practical design and *low initial cost* account for its extremely wide use by many of the most famous firms among packagers—and its equal popularity with many smaller volume producers.

A left-to-right operating machine, the REDINGTON 9L fits easily into your line. There is a belt intake to facilitate bringing articles into the loading area. There is plenty of room for operators to stand and load cartons, as articles and cartons are conveyed along in a steady flow. You can change from your smallest to your largest size quickly, often in an hour or less—which means less profit-consuming down time. The machine will accommodate reverse-tuck cartons all the way from 1¼" to 8" in height—⅞" to 4" in width—⅜" to 3¼" in depth; and special variations from this range are often possible. Also available for special needs are such added features as: strip-gluing mechanism for the bottom tuck flap—code-printing or impressing device—empty carton detector—caster-mounting for easy mobility.

Type 9L cartoning is the money-saving way to package *low-volume items—high-volume items* where there is a wide variety of package sizes—special-sale *combination* deals. As basic equipment for faster, lower-cost packaging in many applications, as a standby for emergency runs in many other cases, this highly practical machine (built, like all REDINGTONS, in a 60-year tradition of uncompromising quality of materials and workmanship) can prove a mighty profitable investment for *you*.

★ *Send for detailed data on Type 9L—and 44-page illustrated catalog of the full REDINGTON line*

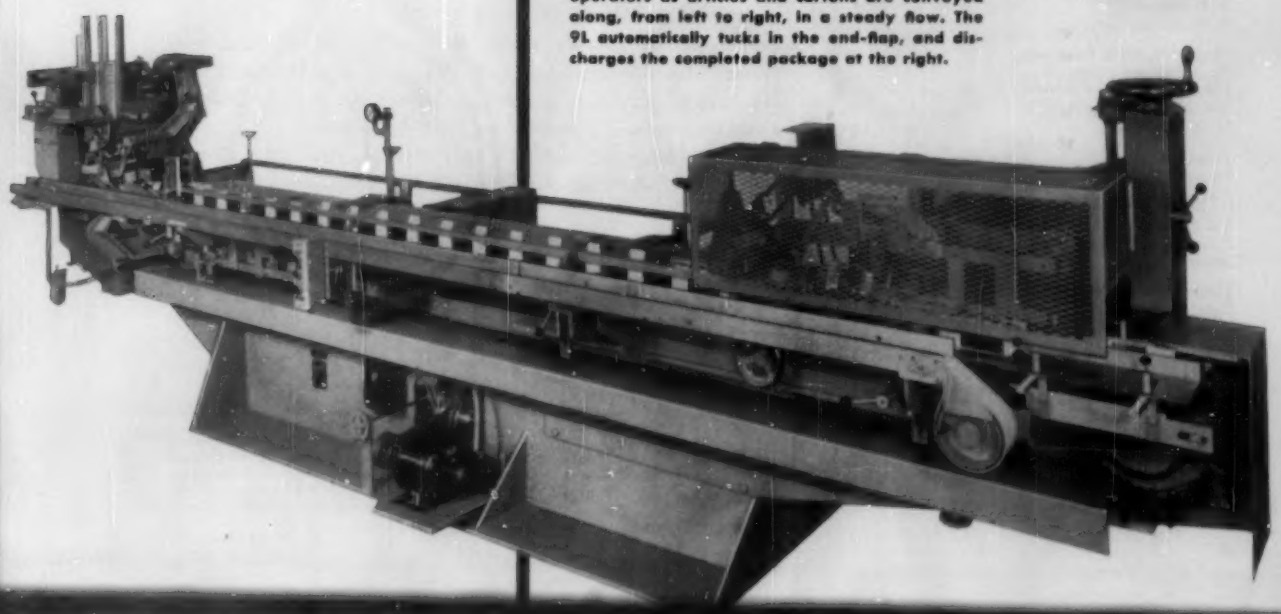
since 1899

REDINGTON

AUTOMATIC MACHINES for CARTONING
WRAPPING • SPECIAL PACKAGING

F. B. REDINGTON CO.
3010 ST. CHARLES ROAD, BELLWOOD, ILLINOIS..
Chicago Phone: AUstin 7-4200
Verona, New Jersey *CEnter 9-4608*

REDINGTON *Type 9L can package almost any solid object with straight-line efficiency. Cartons, flat-stacked in the magazine, are automatically fed and expanded. Then they are loaded by operators as articles and cartons are conveyed along, from left to right, in a steady flow. The 9L automatically tucks in the end-flap, and discharges the completed package at the right.*



Executive and Editorial Offices
575 Madison Ave., New York 22, N. Y.
Telephone: Plaza 9-2710

President and publisher
Charles A. Breskin

Executive vice president
Alan S. Cole

Editor
Lloyd Stouffer

Managing editor
Pearl Hagens

Associate editors
Gladys Tarragano
William C. Simms
Robert Slater

Midwest editor
Phillip A. Urion (Chicago)

Technical editor
Charles A. Southwick, Jr.

Advisory editor
C. W. Browne

Patents editor
H. A. Levey

Reader service editor
Florence Getter

Art director
Donald R. Ruther

Circulation manager
Robert Birnbaum

Promotion manager
Philip W. Muller

Production
Daniel M. Broads, *director*
Bernard J. Farina
Verna Retzlaff

Advertising
Alan S. Cole, *general manager*
B. W. Gussow, *adv. manager*
P. H. Backstrom
M. A. Olsen
S. S. Siegel
R. C. Nilson
B. R. Stanton

Chicago 11, 101 E. Ontario St.
Phone DElaware 7-0060
James M. Connors
William F. Kennedy
H. R. Friedman

Cleveland 22, 20310 Kinsman Rd.
Phone SKyline 1-6200
Robert C. Beggs

Los Angeles 48, 6535 Wilshire Blvd.
Phone OLive 3-3223
James C. Galloway

London S. W. 1, England
Panton House, 25 Haymarket
Phone TRafalgar 3901
T. G. Rowden

Frankfurt, Germany
Wittelsbacher Allee 60
Phone 46 143/46 372
Georg J. Linder

Treasurer
Ruth Tulbert

MODERN PACKAGING®

A new cover series

With this issue MODERN PACKAGING inaugurates a new series of cover stories which, in several respects, departs from the magazine's customary editorial policy.

Having just completed a series of 33 studies of leading package-consuming industries, which is quite in line with our traditional editorial objective, we turn now to a series on leading package-supplying industries, which is unusual.

From the time this magazine was founded, 30 years ago, it has devoted itself strictly in articles to reporting what is being done by package users, because in that policy lie two important safeguards: (1) the fact of use is the one positive assurance that a new idea works; (2) the package user —for whom, alone, this magazine is edited—can best interpret a new development by looking at it through the eyes of another package user.

There is not and will not be any basic deviation from this policy. But it has seemed to us that package users have a legitimate interest, too, in the industries that supply them. The user of cans, for example, knows all about cans as they affect his particular product. But does he know all he should about the industry behind the can—of the years of research that solved his product problems; of the size, stability and basic policy of the can industry; of the new things now in the development stage that may affect his package planning for years ahead?

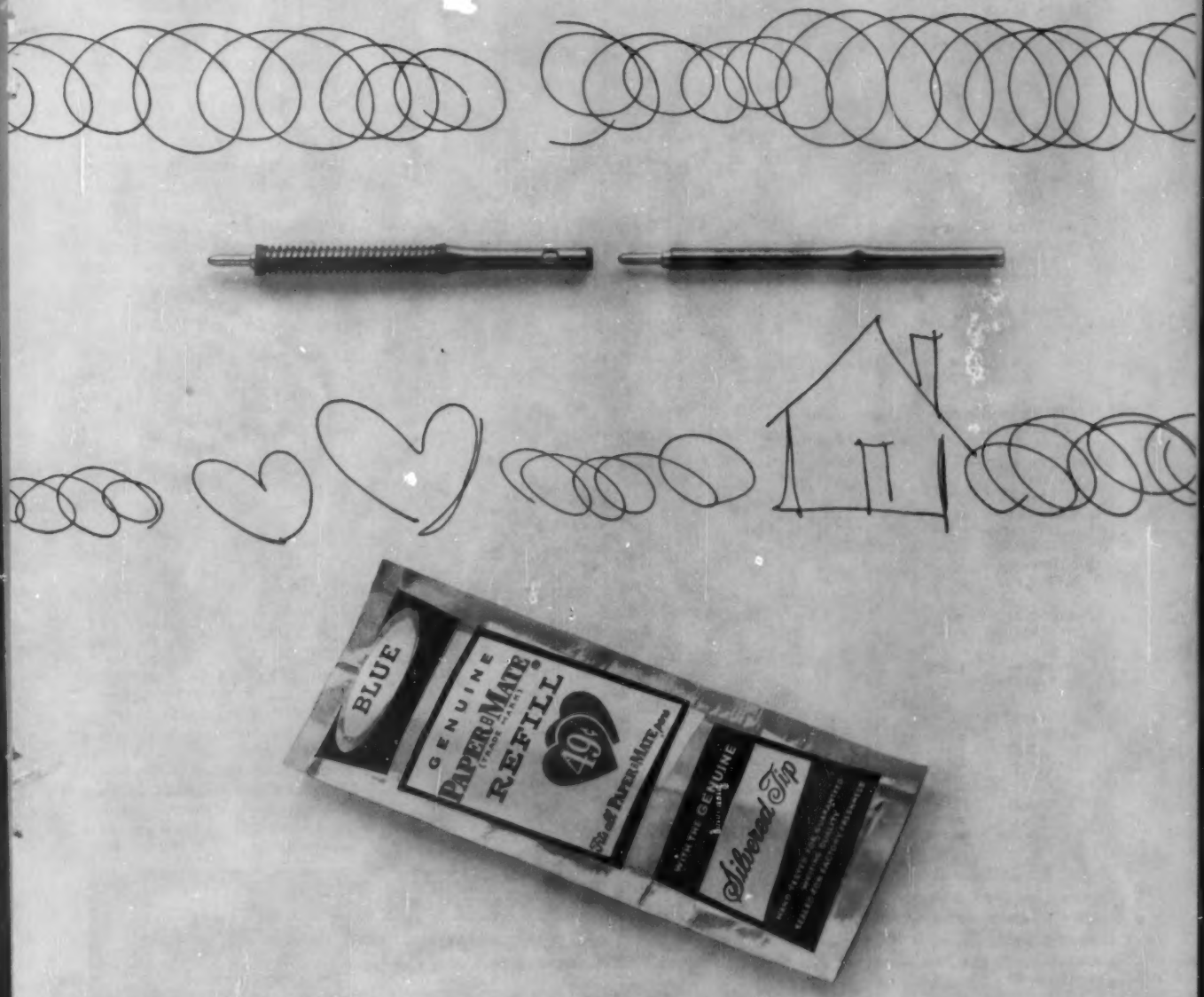
The new cover series, then, swings deliberately to the other side of the fence. It will confine itself to the industries manufacturing the major, basic, unit-of-sale containers made of glass, metal, paper and plastics. It will look briefly into the history of the package and probe the philosophy of the industry. It will search out most carefully the new developments and the trends for the future. Always, these articles will treat with the industry as a whole and not with individual companies as such.

As cover designer for the new series, MODERN PACKAGING turns once more to Walter Allner, distinguished European artist now associated with *Fortune* magazine, whose covers in previous series have won for MODERN PACKAGING two blue ribbons from the New York Art Directors Club. In the present series, Mr. Allner introduces a new concept, combining abstract with photographic art, which we think you will find refreshing.

The Editors

Contents copyrighted 1957 by Modern Packaging Corp. All rights reserved, including the right to reproduce this book or portion thereof in any form. The name Modern Packaging is registered in the U.S. Patent Office. Printed in U.S.A. by Hildreth Press, Inc., Bristol, Conn. Member, Audit Bureau of Circulations. Member, Associated Business Publications. Modern Packaging is regularly indexed in the Industrial Arts Index.

i[D]ea at work...



Dobeckmun Metalam® writes up faster sales for Paper-Mate.

For any product where protection, convenience and easy-to-read directions add up to sales appeal, a colorful package like this can make a tremendous difference. Firm and strong, yet easy to open, printed Dobeckmun Metalam solves many a selling problem, and probably yours. Get in touch with your nearest Dobeckmun representative or write Dobeckmun direct.

Dobeckmun Company, Cleveland 1, Ohio • Berkeley 10, California

Albuquerque • Atlanta • Baltimore • Boston • Charlotte • Chicago • Cincinnati • Dallas • Denver • Detroit • Indianapolis • Kansas City
Los Angeles • Memphis • Milwaukee • New Orleans • New York • Omaha • Philadelphia • Phoenix • Pittsburgh • Portland • Richmond
Rochester • Salt Lake City • San Antonio • Seattle • St. Louis • St. Paul • Syracuse • Tampa • Yakima • Havana • London • Amsterdam

Paper Canisters KEEP THEIR POWDER DRY!

Gunning for garden bugs with this powder pump gun is the modern way to attack plant insects . . . and the modern way to package *Carac Rose and Garden Dust.* HARCORD'S sealed, tamper-proof cylinder is the weapon which shoots to kill with an easy sliding motion! HARCORD packages like these have become indispensable sales weapons for alert merchandisers like The Carac Corporation.

AMMUNITION for insect control is one of the many areas where Harcord packaging plays a big and budget-conscious job . . . because these adaptable paper canisters are so well suited to the insecticide field. Special "moisture-proof" processing helps maintain the free-flowing high potency of many powdered insect killers. Let Harcord engineering "know-how" produce the canister that will suit the precise purpose of your product . . . well within your budget!

Sears Roebuck & Co. puts many a label on HARCORD containers. This fast-selling cross country *Fruit Spray* uses a square, sturdy shaker can . . . because it stands up well at the counter, in mail order shipment, on the garden shelf. HARCORD quality and competitive price protect the contents . . . and the profits!

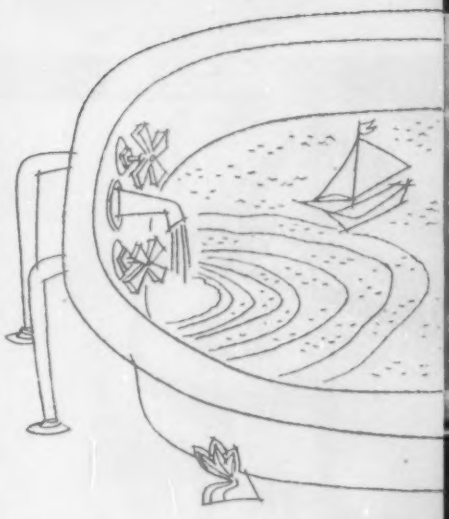
Acme Paints has attained excellent consumer recognition for 6% Chlordane Dust packaged in a HARCORD paper canister. Response indicates strong trade and consumer acceptance of this colorful package—a perfect eye stopper.

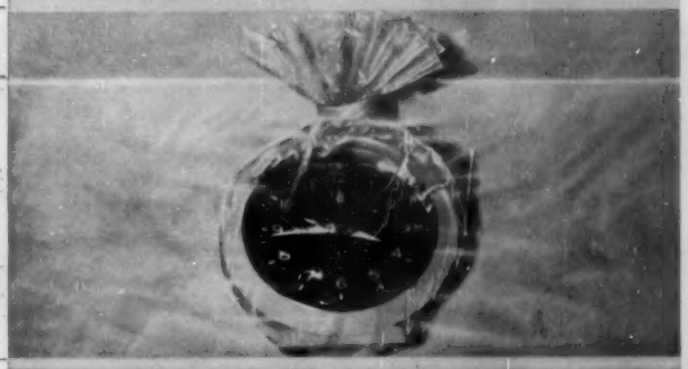
You Sell It Better . . . because You Say It Best with PAPER CANISTERS by

HARCORD

HARCORD MANUFACTURING CO., INC.
125 Monitor St., Dept. MP-1, Jersey City, N. J.
New York Telephone BArclay 7-3838

Rub-a-dub-dub ALARM CLOCK'S IN THE TUB



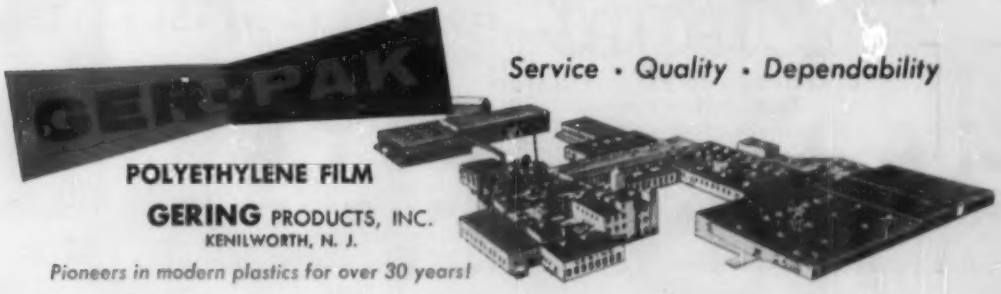


Protected by GER-PAK®

Polyethylene sheeting and tubing

Here's a homemade torture test we tried with our 8 day clock — and we invite you to try the exact same test with your own product . . . to dramatize the great packaging gains you can achieve with Ger-Pak polyethylene film! For Ger-Pak gives full protection — *dependable* protection . . . against water, grease, acids, alkalis, dust and bacterial contamination. The tough, chemically inert film stands up against heavy abuse — and helps cut packaging costs to the bone . . . especially if you switch to the new lightweight shippers with Ger-Pak Liners.

You'll find it easy to use Ger-Pak. This pure, uniform gauge polyethylene film is available in tubing and flat sheeting in any required widths and unlimited lengths. For full information, please write.



Service • Quality • Dependability

POLYETHYLENE FILM

GERING PRODUCTS, INC.
KENILWORTH, N. J.

Pioneers in modern plastics for over 30 years!

frosting mix . . . easy to fix

PILLSBURY'S NEW MILK CHOCOLATE FROSTING MIX USES RIEGEL'S POUCHPAK*. . . FOIL LAMINATED TO SPECIAL POUCH PAPER, POLY-COATED . . . DESIGNED TO RUN AT HIGH SPEEDS ON PNEUMATIC SCALE PACKAGING MACHINES.

* T.M.

Protecting the sales-winning qualities of fine products is only one of the many functions of Riegel papers. Saving money is important, too. Riegel does it for you by creating the right combination of the most efficient packaging materials . . . and by "tailor-making" the paper to run and seal at high speeds on your machines. Tell us what you want paper to do for you. Riegel Paper Corporation, P.O. Box 170, Grand Central Sta., New York 17, N. Y.

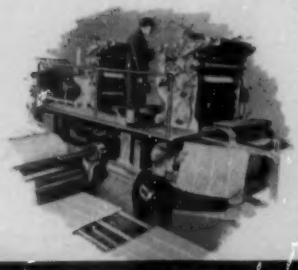
Riegel

PROTECTIVE PAPERS FOR PACKAGING

GLASSINES AND GREASEPROOFS
Plain • Waxed • Printed
Lacquer-Coated • Laminated

PRODUCT RESEARCH

ENGINEERING



LITHOGRAPHY

CLOSING MACHINERY

NATIONAL CAN

Personal Service

SALES SERVICE

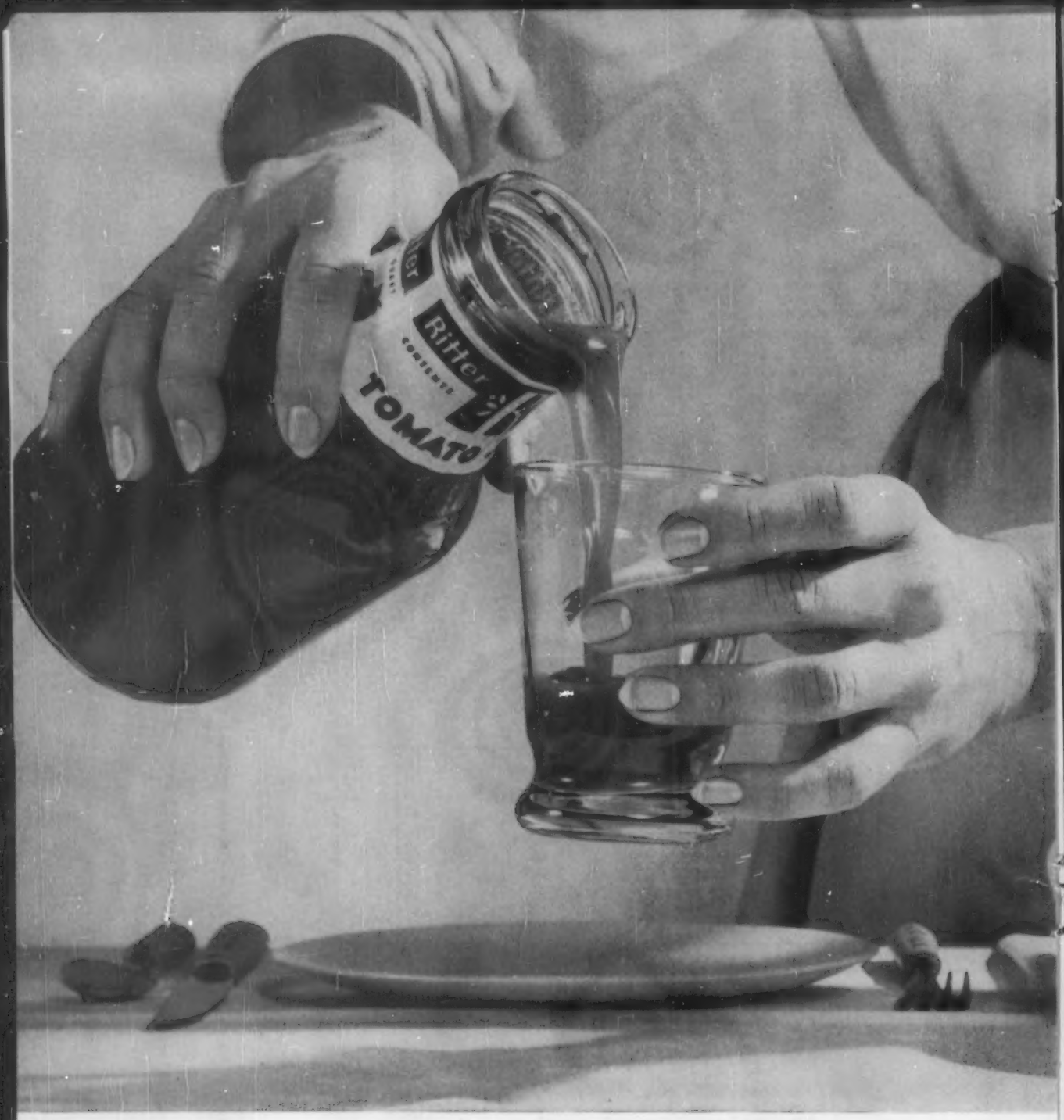
DESIGN

RESEARCH DEVELOPMENT

Combine a keen and personal interest in your products and your processes with our sincere desire to be of help . . . and you have *NATIONAL CAN'S — "Personal Service!"* Why not let us survey your needs — you'll see how much more you get from NATIONAL CAN.

NATIONAL CAN CORPORATION

CHICAGO • NEW YORK • SAN FRANCISCO . . . PLANTS FROM COAST TO COAST



Beautiful example of functional design

Besides looking well on the table, this handsome tomato juice decanter has at least two other design features that especially appeal to housewives: It's easy to hold and pour from . . . and it has a practical re-use as a water carafe. It also has added shelf appeal because of the Cel-O-Seal* neck label that leaves the body of the decanter free to display the product.

When you're planning a new package, our designers will gladly suggest ways imaginative design can be put to work to fit your particular sales situation. Armstrong Cork Company, Lancaster, Penna.

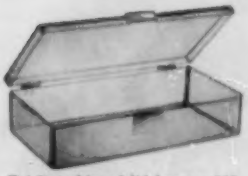
Armstrong PACKAGING

WATCH ARMSTRONG CIRCLE THEATRE EVERY OTHER TUESDAY EVENING ON NBC-TV

*Reg. DU PONT DE NEMOURS & CO., INC.

Making an indelible impression on the busy physician is the major promotional job of prescription medicine manufacturers. Consequently, when E. R. SQUIBB & SONS developed Florinef, a new type of cortisone, they decided on *Tri-State* rigid plastic packaging to dramatize it to doctor and druggist. The unique package, in this instance, did more than "write" prescriptions. It helped the pharmacist's relations with his customers, too. The gleaming, crystal-clear bonus case helped "soften" patient reaction to the necessary cost of this wonder drug. And it protects the tube from puncture, squeezing, damage.

More and more, *Tri-State* crystal-clear protective packaging is playing a promotional role in this and endless other fields. Its cost is so little, its advantages are limitless. Whether you're selling peanuts, pins, or precision instruments, it pays to package in *Tri-State* rigid plastic bonus boxes.



Tri-State hinged lid box no. 305
4-1/2" x 1-11/16" x 7/8"
From the world's largest assortment of stock sizes and shapes, or we will mold large quantities to your specifications.

TRI-STATE PLASTIC MOLDING CO

HENDERSON 6, KENTUCKY

NEW YORK: 12 E. 41st St., MUrray Hill 5-8745 • CHICAGO: 176 W. Adams St., FRanklin 2-5567 • ST. LOUIS: 1089 Francis Place, PArkview 5-1099
DETROIT: 18401 E. Warren Ave., TUxedo 5-5500 • SAN FRANCISCO: 441 Folsom St., EXbrook 2-7664 • LOS ANGELES: 5957 So. Western Ave., PLeasant 3-2111

AUNT JEMIMA

ALUMINUM FOIL SWEEPS 1956 NATIONAL FLEXIBLE PACKAGING COMPETITION WITH 5 OUT OF 6 ALL-SHOW AWARDS

LUX

SEAPAK

RICE'S

HIRAM WALKER

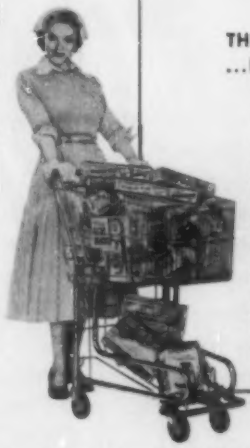
Reynolds Wrap Aluminum Packaging takes First Prize, Second Prize and Two Honorable Mentions among All-Show Awards... also Honorable Mention for Bread Wrap in its Classification.

In this important competition, first of its kind, aluminum foil sweeps the field for best design, best merchandising impact, best functional performance.

Among the 5 Reynolds winners, the range of package types is wide. The Quaker Oats Company's first-prize winner represents convenience packaging at its best—using Reynolds Wrap both for the baking tray inside and for the protective outer wrap. Lux has a protective story plus dominant eye appeal in its gold wrap. The SeaPak package offers high protection plus cook-in-the-bag convenience. Rice's foil-wrapped Weekender Loaf is a survey-proved success in foil-wrapped bread. And, Hiram Walker represents the best in decorative packaging.

Whichever of these categories *your* product fits in...see what Reynolds Wrap Aluminum Packaging can do for it. Call the nearest Reynolds sales office (all principal cities). Or write to **Reynolds Metals Company,** Louisville 1, Kentucky.

QUALITY PROTECTED WITH REYNOLDS WRAP® ALUMINUM PACKAGING



THIS SEAL IS A WINNER, TOO ...FOR 7 OUT OF 10 SHOPPERS!

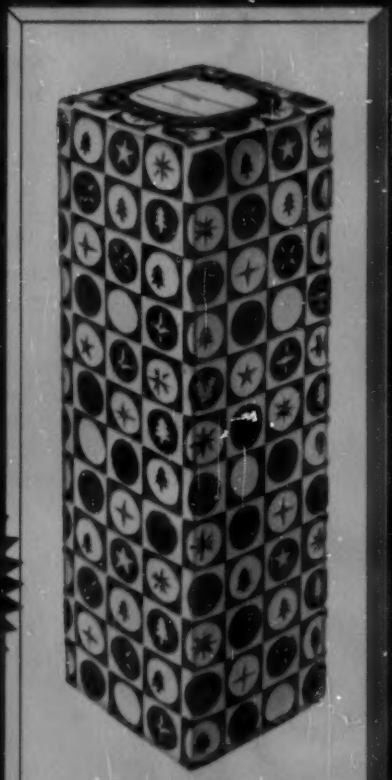
According to a nation-wide, 44-city survey, 72.5% of women respondents could identify the Reynolds Wrap Aluminum Packaging Seal and 59.2% of these women prefer food products that carry it! Powerfully promoted by national magazines, by network TV, and by dramatic point-of-sale displays.

See "Circus Boy", Reynolds dramatic adventure series, Sundays, NBC-TV Network.

REYNOLDS ALUMINUM

Best of Show—First prize in the "Outstanding Packaging Applications" category (The President's Award). Also First Award in "Foil, Sheets & Rolls".

Second Prize in the "Outstanding Packaging Applications" category, also Honorable Mention in "Foil, Sheets & Rolls".



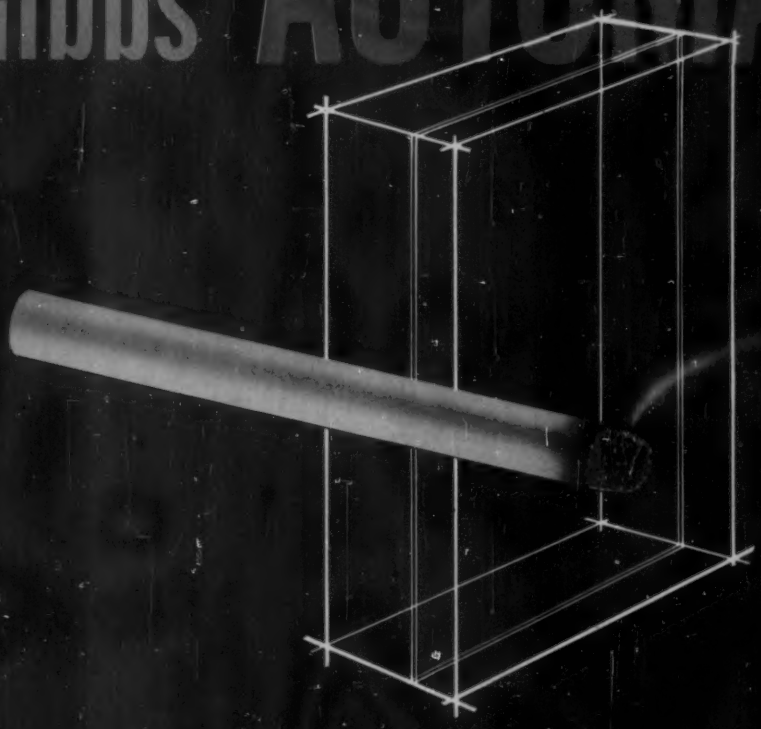
Second Award in "Foil, Sheets & Rolls", also Honorable Mention in the "Outstanding Packaging Applications" category.

Second Award in "Foil Bags and Pouches", also Honorable Mention in the "Outstanding Packaging Applications" category.

Honorable Mention in "Foil, Sheets & Rolls".

Awards to Reynolds Wrap Aluminum Packaging ...1956 National Flexible Packaging Competition

Gibbs AUTOMATION



Sparks Unlimited Ideas in Rigid Plastic

Re-usable plastic "packs" for cigarettes, see-thru containers for adhesive bandages, kiddie crayons, disposable hot drink cups. All these, and hundreds of other ideas are now an economic reality with the opening of the fully automatic Gibbs molding operation.

Complete automation, engineered by Gibbs, the pioneer producer of rigid plastic boxes, means faster production of better boxes . . . at the lowest cost ever! The world's most advanced equipment can produce shapes and sizes to meet the packaging needs of practically any product. Now, the self-service package, the glamour of a bonus box can add their promotional and protective qualities to every product . . . and every product can afford it!

Our packaging designers are ready to sit down with your engineers to work out the right rigid plastic box for your product . . . within your packaging budget.

Automation Makes Gibbs Rigid Plastic Boxes Costs Less

For quick service, quality boxes, low quotes, call or write:

GIBBS AUTOMATIC MOULDING CORPORATION

Henderson 3, Kentucky • Telephone: Henderson 9573

Persuasive Packaging

New from Lassiter

Reduced packaging costs for Scripto

. . . with this new Lassiter cellophane package. Processed on fully automatic machinery, which speeds production, cuts expense of packing refills. Original Scripto paper envelope was hand filled, hand stamped, folded and sealed – a costly operation.

Promotional package spurs multiple sales

Life Savers' 1956 Halloween package features a big, bright-orange Jack-O-Lantern. The design is the third developed by Lassiter for Life Savers' annual Halloween promotion. The cellophane overwrap, printed in three colors by flexographic process, is used over the standard 20-roll Life Savers carton. It encourages full-carton sales, can readily be discarded by the retailer after Halloween. Attractive tie-in displays can be set up in retailer's window or on the counter.

Samples build customer demand

Getting consumers to try your product is a major step in building brand acceptance. Sampling is particularly effective if your sample package creates acceptance for – and recognition of – your regular-size package. A good example is this sample package, produced by Lassiter for Burry's Gauchos sandwich cookies.

Best results when user and package manufacturer merge skills into packaging task force

Lassiter merchandising skill opens important outlets

In almost every field of retailing, less than 25 per cent of the outlets account for more than 75 per cent of sales.

Chains and other large-volume merchants, who comprise the major and most profitable part of your market, are the buyers most conscious of packaging.

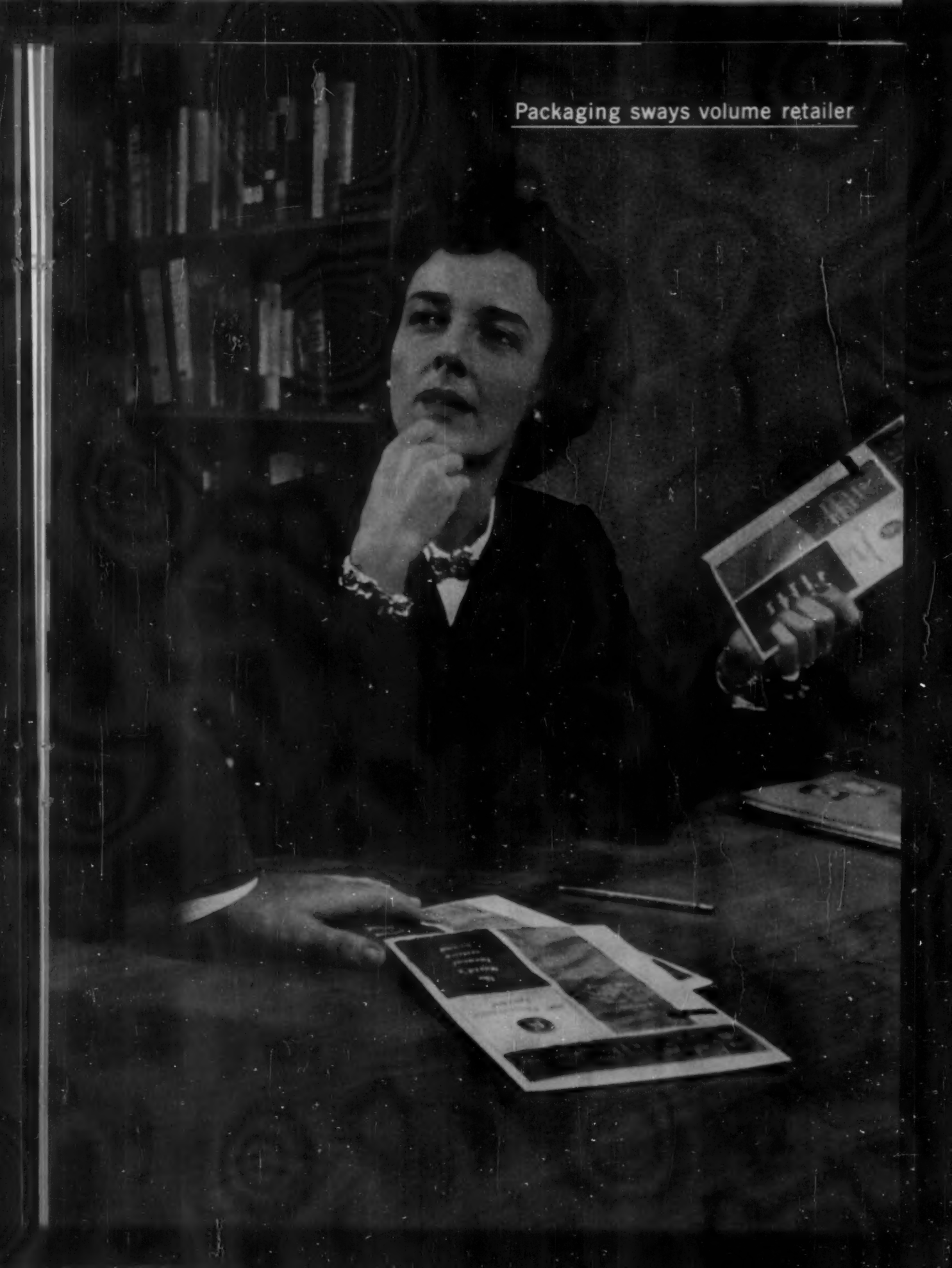
Highly successful packages developed and made by Lassiter have increased sales of many kinds of products – food and non-food – through these key retail units. We should be able to make some constructive suggestions about yours.

Send for these: Lassiter Package Evaluator for rating your own package; samples of Lassiter-designed bags pertinent to your business.

LASSITER
CORPORATION
350 FIFTH AVENUE · NEW YORK 1, N.Y.

Atlanta, Ga. · Chicago, Ill. · Cheltenham, Pa. · Greensboro, N.C.
Charlotte, N.C. · Danville, Va.

Designers and Manufacturers of Packaging in:
Cellophane · Polyethylene · Acetate · Paperboard
Mylar · Foil · Laminations · Vitafilm · Paper


Packaging sways volume retailer

1,222 different size pulleys packaged on one CECO® ADJUSTABLE CARTONER

The world's largest manufacturers of cast iron and pressed steel FHP V-belt pulleys, Maurey Manufacturing Corporation, Chicago, Ill., package 1,222 different size pulleys on a single Model 3901 CECO Adjustable Cartoner.

Changeover time for each different size carton averages less than 30 seconds. Labor savings range from 30% to 70% over previous packaging methods.

CECO OFFERS 3 TYPES of ADJUSTABLE CARTONERS INCLUDING SEMI-AUTOMATIC and FULLY-AUTOMATIC MACHINES each in the

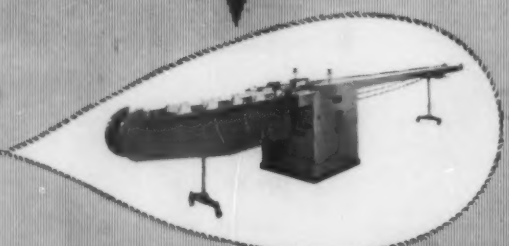
LOW PRICE RANGE

Products packaged economically on CECO Model 3901 include:

- Pharmaceuticals
- Electric Appliances
- Macaroni Products
- Hardware
- Automotive Parts
- Dry Goods
- Building Supplies
- Dairy Products
- Chemicals
- Cosmetics
- Cigars

CECO Model 3901

The most versatile and lowest cost adjustable carton glue sealer in the packaging business. Hundreds in successful operation for large and small concerns all over the world. Carton set-up and product insertion are manual. Cartons are closed automatically.



All CECO Cartoners are adjustable quickly without special tools by unskilled help for a wide range of carton sizes. Economical for long or short runs. All models can glue-seal both ends, or seal one end and tuck the other, or tuck both ends. CECO Cartoners produce clean, square, stronger cartons at less cost and with less floor space. A CECO Cartoner generally pays back its low cost in less than a year. Let us prove it. Send for details.

Quick Delivery

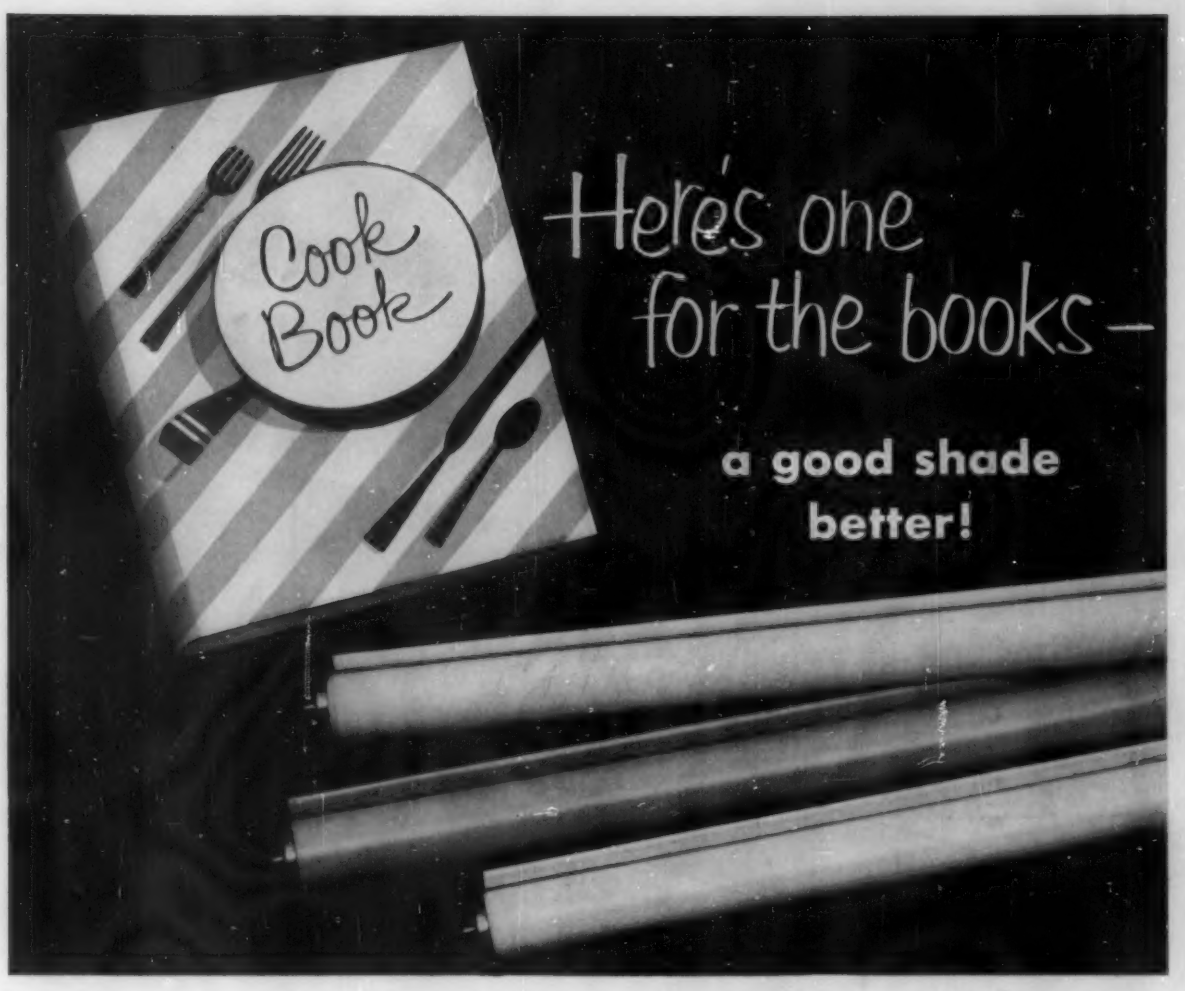
Prefabricated standard components and modern assembly lines permit delivery of some standard models within two weeks.

CONTAINER EQUIPMENT CORPORATION

MEMBER, PACKAGING MACHINERY MANUFACTURERS INSTITUTE

78-88 LOCUST AVENUE, BLOOMFIELD 2, N. J.

PHILADELPHIA • BOSTON • CHICAGO • DALLAS • JACKSON
NEW YORK • SAN FRANCISCO • SAVANNAH • TORONTO



Superior strength, clarity, matchless protection are all combined in this great new packaging film.

It's easy to tell a book by its cover, or a window shade by its color—when they're wrapped in clear, transparent VITAFILM.

You can sense the texture of a product right through it. So hard to break, rip or tear — this newest Goodyear packaging film is ideal for hardware, paper products, textiles and a wide variety of similar items.

ITS CLARITY IS OUTSTANDING—*and its "feel" is better!* It's a fine sales booster because when customers can see what they want, they're more likely to want what they see. It's so strong it withstands rough handling without splitting or tearing. But that's not all.

VITAFILM prints clearly—heat-seals easily—adapts readily to all kinds of packaging machinery. And it's available in bags — perfect for sweaters, underwear, shirts and ties.

How about finding out what VITAFILM—a Polyvinyl chloride—can do for you? Talk it over with the Goodyear Packaging Engineer. Write Goodyear, Packaging Films Dept. A-6418, Akron 16, Ohio.

Vitafilm a new GOODYEAR PACKAGING FILM

The Finest in Sheer Protection

Vitafilm, a Polyvinyl chloride—T.M. The Goodyear Tire & Rubber Company, Akron, Ohio

- ★ all types of flexible glues
- ★ folding box glue
- ★ tightwrap glue

Rely on Bingham's wide experience with specialized types of glues and adhesives, and assure yourself of trouble-free bonding and sticking. Bingham adhesives stem from the same thorough research and high-standard production methods that have established the Bingham organization as the leading manufacturer of printing press rollers.

Packaging—Bingham supplies a range of adhesives for various packaging operations. All of these specially developed glues and pastes are strong, long-lasting, non-warp bonding agents.

Graphic Arts—Bingham manufactures adhesives for every pressroom need. An extensive knowledge of the graphic arts industry has enabled Bingham to develop bonding materials specifically tailored to the printer's requirements.

PASTES · GLUES · ADHESIVES · GUMS
SINCE 1828

The only 131 year old manufacturer of printing press rollers in the world.

Member of the only
100 year old club in the world.

BINGHAM BROTHERS COMPANY

EXECUTIVE OFFICES
406 PEARL STREET, NEW YORK 38, N.Y.

FACTORIES:
Jersey City 2, N.J. 257 Brunswick St. • New York 38, N.Y. 404 Pearl St. • Philadelphia 7, Pa. 1315 Race St.
Rochester 5, N.Y. 980 Hudson Ave. • Cambridge 42, Mass. 23 Harvard St. • Baltimore 18, Md. 1011 Curtain Ave. • Garwood, N.J. 648 South Ave.

SERVICE BRANCHES AND WAREHOUSES:
Springfield, Mass. • New Haven, Conn. • Richmond, Va.

SERVICE BRANCHES:
Worcester, Mass. • Providence, R.I.

THE *RIGHT* CHES-LAMINATE TO *SOLVE YOUR* PACKAGING PROBLEMS!

FOR CONVERTERS AND DIRECT USERS OF PACKAGING MATERIAL

CHESLAM KB ..... **Polyethylene Coated Kraft Bleached**

CHESLAM KN ..... **Polyethylene Coated Kraft Natural**

CHESWRAP ..... **Polyethylene Coated Sulphites (Bleached)**

CHESROYALE POUCH ..... **Polyethylene Coated Pouch Paper (Bleached S.C.)**

CHESOPAQUE ..... **Polyethylene Coated Glassine Opaque**

CHESKLEER ..... **Polyethylene Coated Glassine (Super Transparent)**

CHESLAM VP ..... **Polyethylene Coated Vegetable Parchment**

CHESFOIL **Polyethylene Coated Foil Laminated to any of the Above Combinations**

All CHESLAM combinations possess these characteristics:

Highly resistant to:
- Water
- Moisture Vapor
- Extremely low M.V.T. rating

Impermeable to:
- Liquids
- Greases
- Oil
- Powaers

Possess:
- Dimensional stability
- Extremely long life
- Flexibility at low temperatures

Also resists:
- Acids
- Alkalis
- Puncture
- Splitting or cracking
- Rough handling

Use for:
- Pouches
- Bags
- Envelopes
- Tubes
- Rolls
- Sheets
- Strips
- Wrappers
- Bands

Sealable by:
- Heat
- Adhesives
- Pressure tapes
- Sewing

Features:
- Chemically inert
- Tasteless
- Odorless
- Non-toxic
- Extra tough
- Extra strong
- Printable

Machinable:
- Automatic
- Semi-automatic

TECHNICAL ASSISTANCE

Cheslam's completely equipped Testing Laboratory will aid you with your product packaging problem and make specific material recommendations.

CHES-LAMINATES

CHESLAM CORPORATION

Division of Chester Packaging Products Corp. • A Subsidiary of St. Regis Paper Co.

684 Nepperhan Avenue Yonkers 2, New York

Offices in Chicago • Philadelphia • Detroit • Los Angeles • Boston • Toronto

☐ I am interested in a laminate combination for _____

☐ Please have representative call MP 1-57

Firm _____

Address _____

City _____ State _____

Name _____ Title _____

Super GM-1000-M

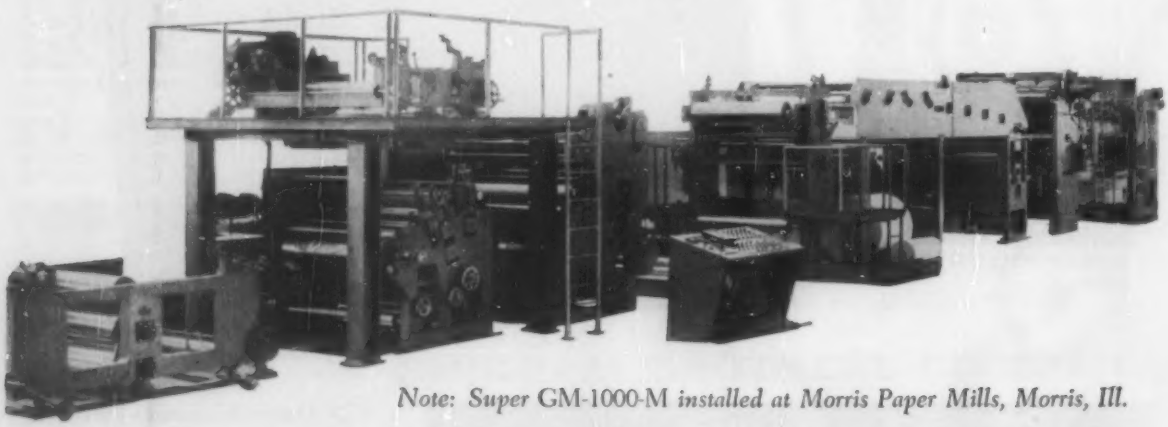
by INTA-ROTO

The New Super GM-1000-M is designed to laminate foil or paper to one or both sides of paperboard, coat, color or treat one side by Flexographic process as well as either side by Rotogravure process with provision for cutting into sheets or rewinding into rolls.

The New Super GM-1000-M includes double unwinds for 30" O.D. rolls of paper, single unwinds for 18" O.D. rolls of foil, double unwind for 60" O.D. rolls of paperboard, two glue mounting units, one Flexographic and one Rotogravure printing station with drying tunnel, sheeter and layboy for 51" x 70" maximum size sheets as well as rewind for 63" O.D. finished rolls.

The New Super GM-1000-M is equipped with constant tension controls, side guide controls, hydraulically operated impression units, electric eye on sheeter and layboy and is driven through synchronized electric motor drive with all controls and indicators mounted on a master console control cabinet.

The New Super GM-1000-M is available in different widths and is designed for speeds up to 400/500 feet per minute. Additional details are available upon request. Write today.



Note: Super GM-1000-M *installed at Morris Paper Mills, Morris, Ill.*

INTA-ROTO
MACHINE COMPANY, INC.

P. O. BOX 454, BYRD AIRPORT, RICHMOND 3, VA. • PHONE: FAIRFIELD, VA., 4181

AUTOMATION?
you name it...we'll tape it!

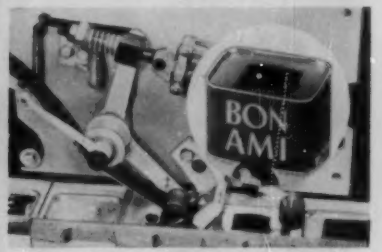
The trend in industrial production is toward *automation* . . . and tape application is no exception. There are more than 75 different types of manual, semi-automatic, and automatic dispensers for "SCOTCH" Brand Tapes. These basic types lend themselves to an infinite variety of adaptations. Chances are, wherever you use (or *could* use) tapes, we can provide a dispenser that will enable you to enjoy cost-saving, production-speeding benefits.

DISPENSERS... *to speed the application of the more than 300 pressure-sensitive tapes for industry, trademarked . . .*

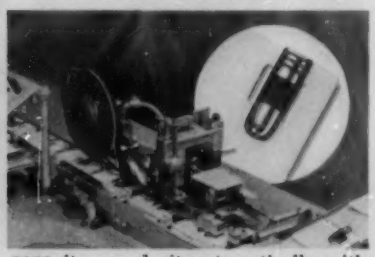
REG. U.S. PAT. OFF.

SCOTCH
BRAND

Look what you can do with dispensers!



FLAT-SURFACE applicator, dramatized by Artzybasheff at left, automatically applies predetermined lengths of tape to moving objects at production-line speeds of better than a unit a second.



CARD items – do it automatically with "SCOTCH" Brand Tape. Here, tubes and pre-printed cards are brought into position in "tape stapler"; printed, transparent, or colored tape automatically locks tube and card together.

COMBINE two or more same-size packages automatically with "SCOTCH" Brand Tape and "SCOTCH" Package Bundler S-69. Handles up to 75 combinations a minute; special cut-off synchronizer available for printed tapes.

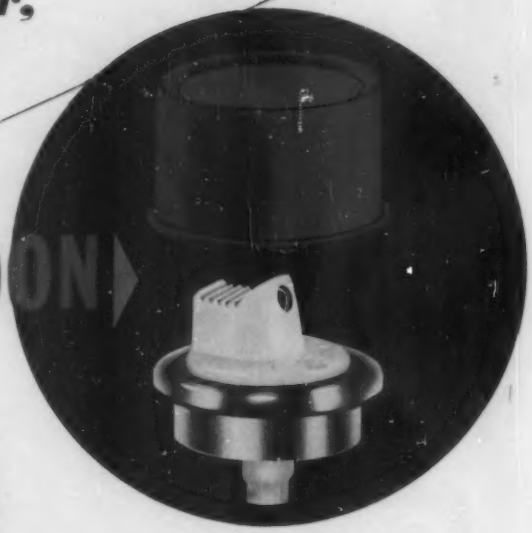
SEND FOR free folder describing automatic, semi-automatic, and manual "SCOTCH" Brand Dispensers for production, packaging, and assembly. Write on your letterhead to 3M Co., Dept. EA-17.

The term "SCOTCH" is a registered trademark of Minnesota Mining and Manufacturing Co., St. Paul 6, Minn. Export Sales Office: 99 Park Ave., New York 16, N.Y. In Canada: P.O. Box 757, London, Ontario.

© 3M Co., 1956

Vital Part Of Another, Water-Base Aerosol Packaging Success

VALVE BY RISDON



The new push-button bonanza for housewives—Jet-Spray BON AMI is one of the latest pressurized products dispensed by a Risdon 5210 valve.

This is a water-base product which cannot be mixed with the propellant; therefore a three-phase dispensing system is used. This system calls for a 5210 valve equipped with a Risdon "Micro-Mist"* actuator which produces a fine, atomized spray by a mechanical shearing effect. For conventional aerosols (2-phase) the valve is supplied either with standard Risdon actuators or with "Micro-Mist" actuators when a finer, drier, wider-cone spray is desired.

The 5210 valve has proven an ideal control for virtually the entire range of aerosols. It uses no spring and is made entirely of nylon and rubber except for the metal mounting cup. It is suitable for vertical or horizontal sprays or for foam dispensing. This same basic valve is also available adapted for glass or plastic containers.

** Patented*

RISDON VALVES FOR:

Pressurized Products Packaged in Glass, Metal or Plastic Containers.

DISPENSING:

Conventional Aerosols, 3-Phase Products, Alcohol Base Products, Water-Base Products, Foam Products, Powder Sprays, Metered Sprays, Ultra-Low Pressure Applications, Products Containing Propellant Emulsions or Dispersions, etc.

SEND FOR THESE FREE BOOKLETS

Both the 5210 valve and its glass container counterpart, the GB valve, are described and illustrated in detail by these bulletins. The "Micro-Mist" and other actuators are also covered. Ask for 5210 and GB valve bulletins.

RI-82

RISDON

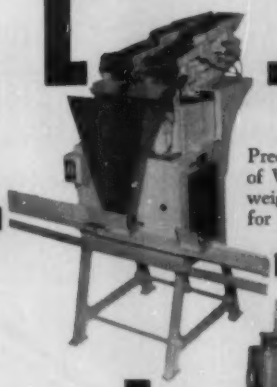
THE RISDON MANUFACTURING COMPANY
Valve Division, Naugatuck, Conn.

The WRIGHT Line For Lower Cost Packaging

Is your company seeking ways to increase the efficiency of its packaging line?

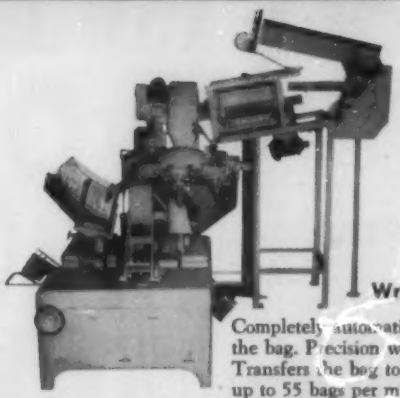
Perhaps Wright can help. We've been developing and manufacturing packaging machinery for 64 years. Our standard machines and systems are used by leaders in a number of industries. They vary in functions but all have this common characteristic—they do a dependable job at lower cost. Detailed literature is available. Also, don't hesitate to write if you are interested in a tailor-made system to meet unusual requirements. Your inquiry is invited.

Wright Strip Stamper Automatically applies revenue stamps over the necks of bottles. Standard equipment in all modern distilleries. Speeds up to 140 bottles per minute.



Wright Weighers

Precision accuracy is the key feature of Wright semi-automatic and automatic weighers. A variety of models available for handling most all types of products.

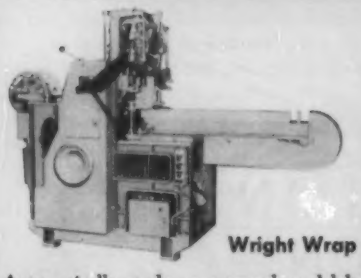


Wright Bagmaster

Completely automatic. Opens and positions the bag. Precision weighs and gently fills. Transfers the bag to the sealer. Speeds up to 55 bags per minute. Potato chips crackers, cookies, candy.

Wright 2-SG Cartoner

Automatically forms the carton, weighs and fills the product, and closes the carton. Widely used in the candy industry.



Wright Wrap

Automatically stacks, wraps, seals and labels cracker sandwiches, fig bars, cookies. Speeds up to 120 packages per minute.

WRIGHT MACHINERY COMPANY

ESTABLISHED 1893 · DURHAM, NORTH CAROLINA
SUBSIDIARY OF SPERRY RAND CORPORATION

District Offices: Ridgefield, N. J.; La Grange, Illinois; Dallas, Texas; Durham, N. C.

Export Department: Wright Machinery Company, 13 East 40th Street, New York 16, N. Y., U. S. A. Cables: ARLAB

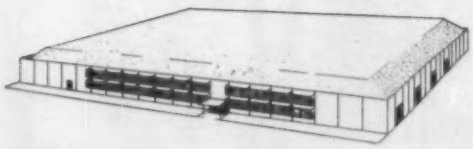
Another addition to GCC facilities for service that never ends

Our new Jacksonville,

FLORIDA PLANT

SERVING EXPANDING AGRICULTURE AND INDUSTRY IN THE SOUTHEAST

The first bold step in expansion of GCC facilities is this new-as-tomorrow corrugated container plant at Jacksonville, equipped and staffed to offer the ultimate in modern protective packaging.



Coming in early '57 . . .

FULLERTON PLANT

Artist's sketch of new California plant now nearing completion, which will serve the vast citrus empire and other Southern California industry.

Specialists in Corrugated and Flexible Packaging

GROWERS CONTAINER CORPORATION

GENERAL OFFICES: P.O. BOX 1211 · SALINAS, CALIFORNIA

SALES OFFICES: SAN FRANCISCO · LOS ANGELES, CALIF.

PLANTS: SALINAS · FULLERTON, CALIF. · JACKSONVILLE, FLA.

Now, by Peerless, to meet a long-felt need, a purse or pocket size aluminum aerosol container for perfumes, colognes, deodorants and pharmaceutical products.

Leak proof because of its seamless bottom and the small aperture at the top. Light in weight, much less than glass or plastic. Unbreakable. Withstands higher pressures. Greater capacity because of its thinner walls. Length, down to one inch. May be decorated in four colors on a base coat.

For the drug industry, perfect for throat and nose sprays. For the cosmetic industry, ideal for perfumes, colognes, deodorants and many kindred products.

Call Peerless for further information.

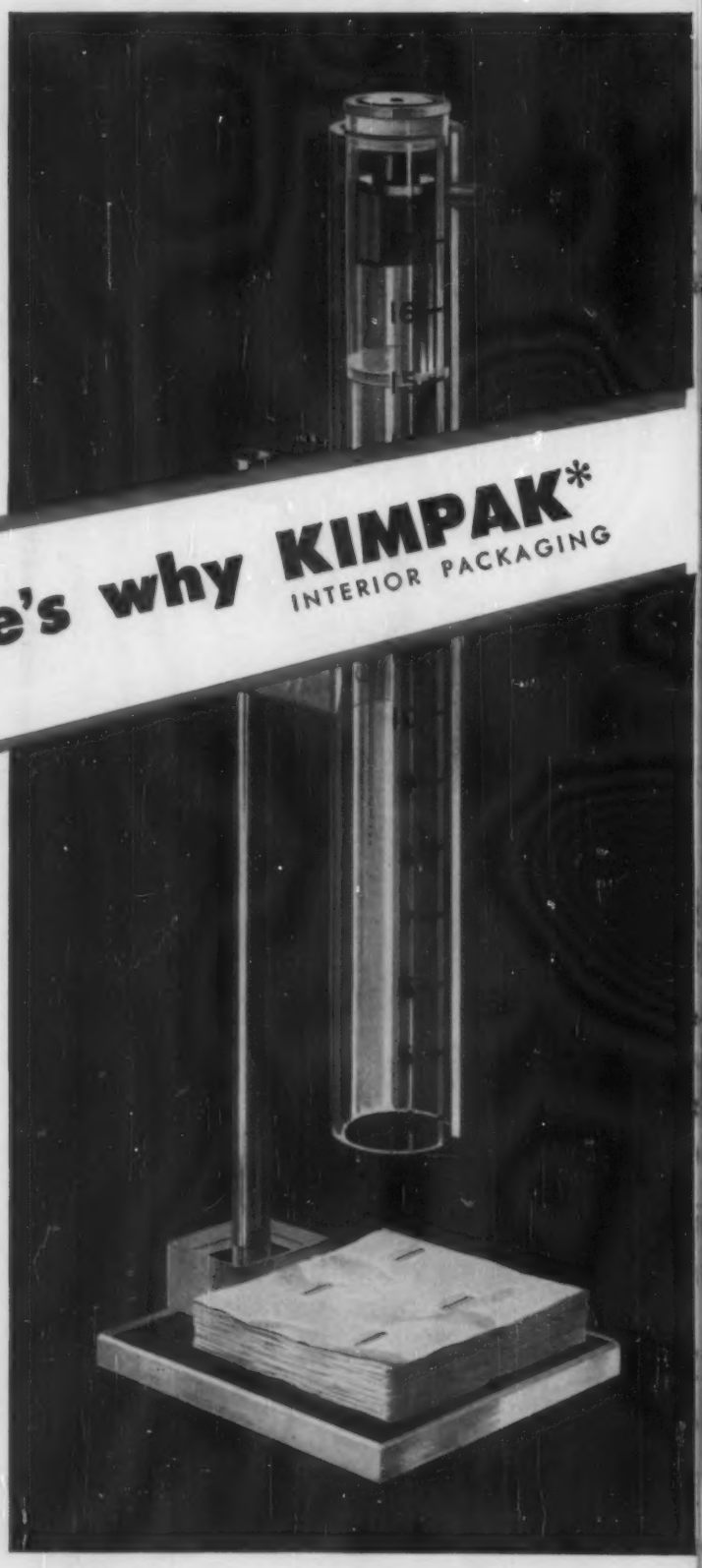
NOW A NEW AEROSOL CONTAINER

FOR PERFUMES AND PHARMACEUTICAL PRODUCTS

PEERLESS TUBE COMPANY
Bloomfield, New Jersey

How test is made

For the "Shock Comparison Test" a small iron disk is held by a magnet. Both are contained within a transparent capsule. The capsule is dropped in a glass tube onto a pad of cushioning material. The highest point from which the drop can be made without the magnet losing its hold on the metal disk is a direct measure of the shock absorbency of the cushioning material.



Here's why KIMPAK* INTERIOR PACKAGING

FREE— Check the effective thickness of your cushioning material

The *effective thickness* of a cushioning material is its thickness under a standard load.

Here's how you can check and examine the effective thickness of the cushioning material you are now using. It's easy and quick with this precision-made, aluminum standard weight which applies the 3½ pound per square foot load required by Federal Specification. Kimberly-Clark offers this standard weight *free* to all packaging engineers and cushioning buyers. Directions are printed on the face. Just ask the Kimberly-Clark representative who calls on you or write Kimberly-Clark, Dept. MP-17, Neenah, Wis.

KIMPAK

Kimpak can absorb the shock of capsule dropped from height of *15"* without separation of magnet and metal disk.

gives better protection . . .

MATERIAL "X"

Only 9.2" is the maximum height capsule can be dropped on material of the same weight as KIMPAK without separation of magnet and metal disk.

Shock Comparison Test proves superior cushion performance

TO GIVE visible proof of the shock absorbency of cushioning materials, packaging engineers at the U. S. Forest Products Laboratory have developed a "shock comparison test." The device pictured here is the instrument used to make the test. It measures the cushion performance of one material against another.

A variety of cushioning materials can be compared for shock absorbency by this simple test. When KIMPAK is tested, you'll see positive evidence of the ideal consistency engineered into it. KIMPAK can often give you *more* shock absorption than other cushioning materials of the same weight or cost because it has more *effective* thickness.

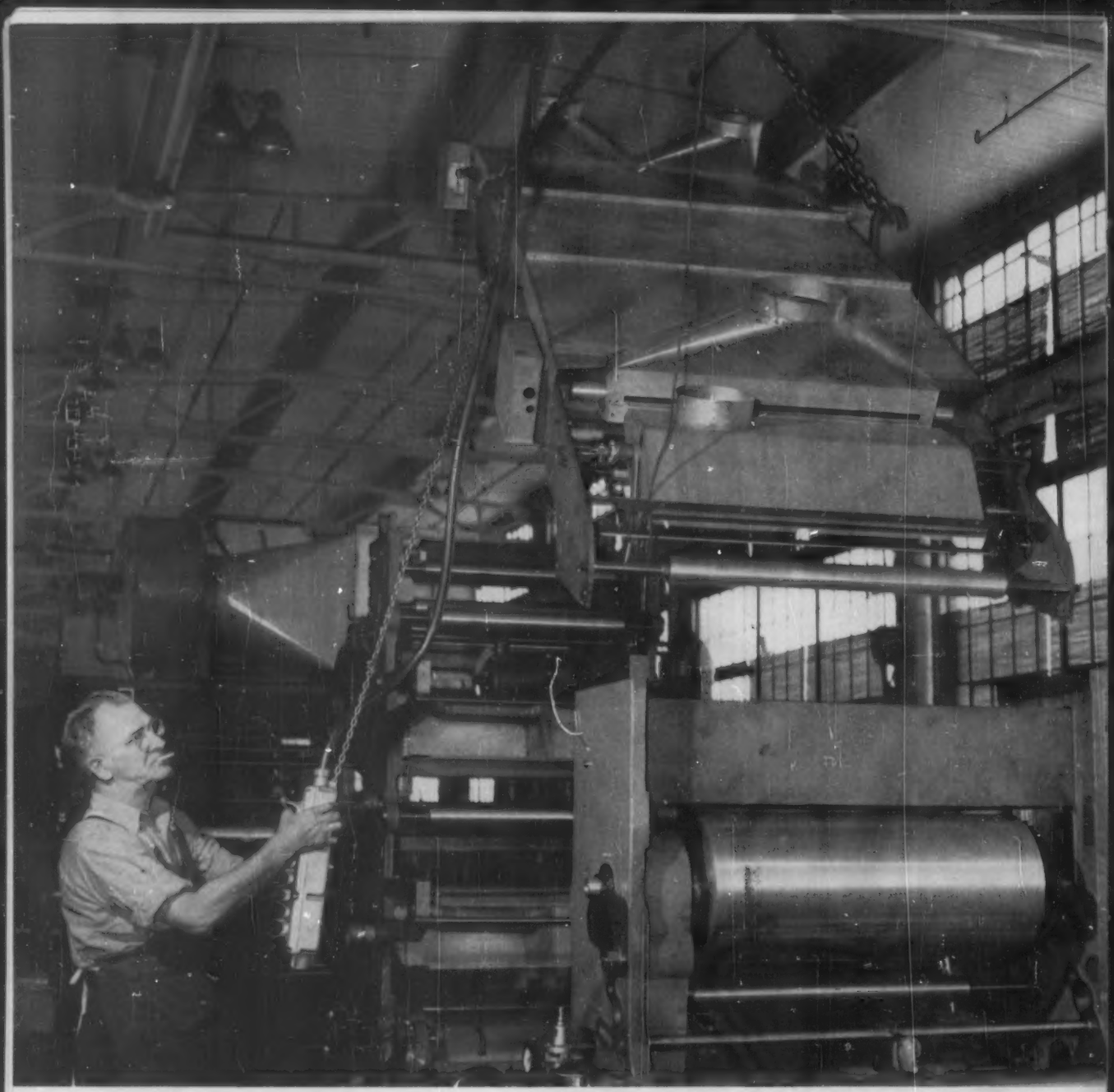
Call or write Kimberly-Clark Corp. today for a Kimpak packaging engineer to see you. He'll gladly help you with your packaging problems and demonstrate the "Shock Comparison Test" for you.

Kimberly-Clark
KIMPAK*

Kimberly-Clark Corporation

Neenah, Wisconsin

*T. M. REG. U. S. PAT. OFF.



They're taking it apart because it runs so well

You see a Kidder Press that is being made ready for shipment. Experienced craftsmen are dismantling it so it can be packed and shipped.

"Why", some people ask, "would it not be as well to assemble the press on the premises where it will be used?"

This could be done, of course. But Kidder wants to know how each press it builds will perform. They want to have every needed adjustment made by the men who built the press originally and know how its running perfection was achieved.

Kidder presses operate so smoothly on the job because they are expertly designed, skilfully constructed and thoroughly tested before they leave the Kidder plant. Their endurance on high-speed long runs is matched only by the superior quality of their products.

Kidder

Letterpress, Flexoprinter® and Gravure Presses, Slitters and Rewinders

Kidder Press Co., Inc., Dover, N. H.—New York Sales Office: Empire State Building, 350 Fifth Ave., New York 1.

CONVOLUTE OR SPIRAL
See CLEVELAND FOR CONTAINERS

CLEVELAND CONTAINERS are made in a wide range of shapes and sizes. With bright metal ends and colorful labels, they present an outstanding, compelling "sales force" for your product.

CLEVELAND CONTAINERS are made of high quality fibreboard providing rigidity and strength for your individual requirements. Closures can be furnished in plug, sifter, dredge wheel or pouring spout types. Slip covers may be either fibre or metal, embossed with trade mark or other identification.

Liners may be moisture and grease resistant and anti-corrosive. They can be furnished in parchment, glassine, aluminum foil, duplex kraft, cellulose acetate, polyethylene, etc.

Containers play an important part in selling your products. CLEVELAND CONTAINERS are made to order for your particular requirements.

Why pay more? For quality products . . . call CLEVELAND!

ILLUSTRATED are five examples of

Convolute Containers

Let us explain the advantages of these containers.

Write

for your copy of our new PACKAGING BROCHURE.

THE

CLEVELAND CONTAINER COMPANY

6201 BARBERTON AVE., CLEVELAND 2, OHIO

PLANTS AND SALES OFFICES: CLEVELAND, DETROIT, CHICAGO, MEMPHIS, LOS ANGELES, PLYMOUTH, WIS., JAMESBURG, N. J., OGDENSBURG, N.Y.

ABRASIVE DIVISION CLEVELAND

SALES OFFICES: NEW YORK CITY, WASHINGTON, D. C., ROCHESTER, N. Y., WEST HARTFORD, CONN.

• ALL-FIBRE CANS • COMBINATION METAL AND PAPER CANS • SPIRALLY WOUND TUBES AND CORES FOR ALL PURPOSES

CLEVELAND CONTAINER CANADA, LTD.

Plants & Sales Offices: TORONTO AND PRESCOTT, ONT.

Sales Office: MONTREAL

How to capture a national market FAST!

Products of INDEPENDENT MALVAH & CANDIES, INC. Brooklyn, N. Y.

DO AS JOYVA DID!

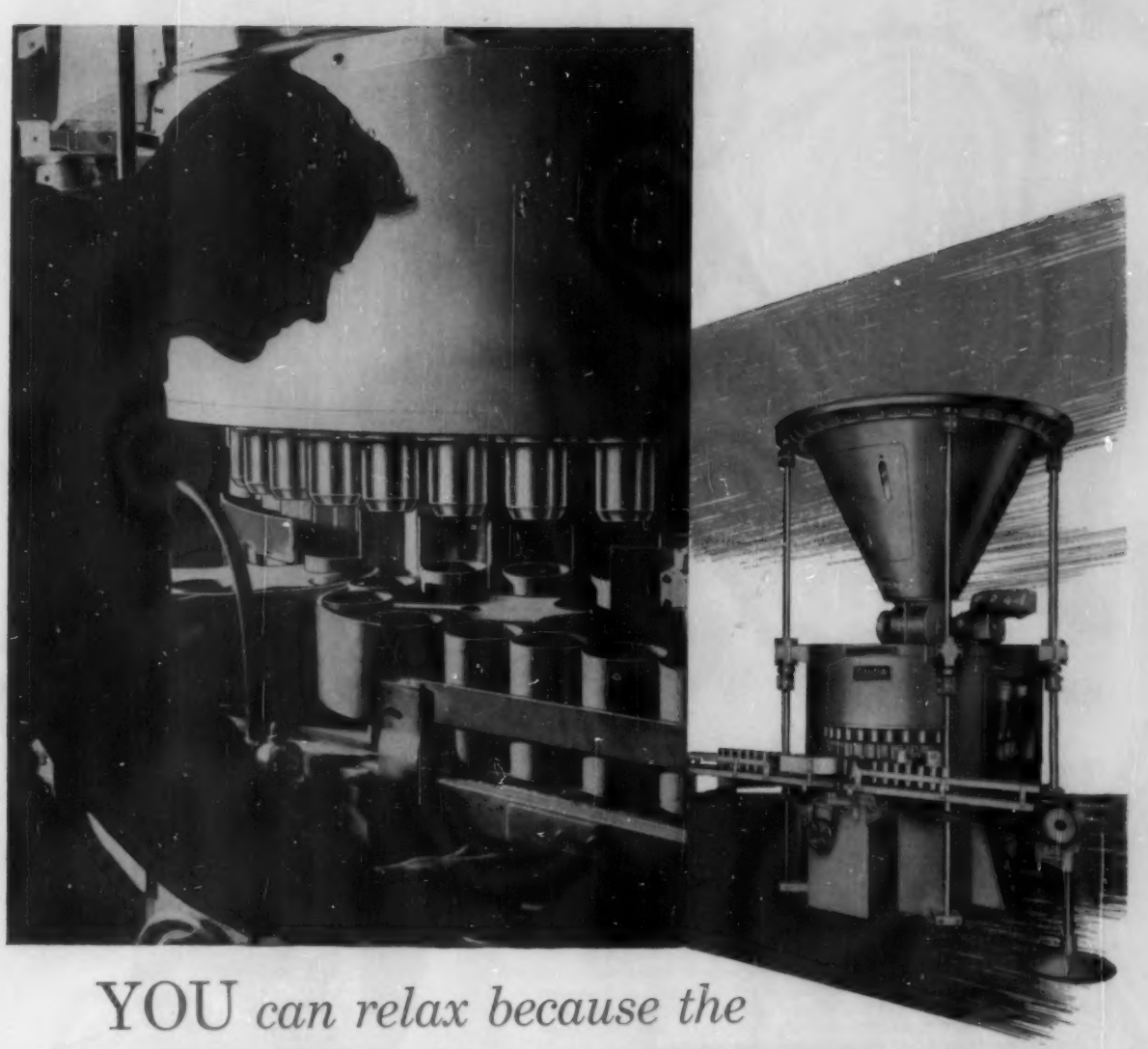
Come to Cellu-Craft for product-identifying packages that build impulse sales. Have a Cellu-Craft Packaging Consultant analyze your package today. There's no obligation, of course.

CELLU-CRAFT
PRODUCTS CORPORATION

Designers, Converters and Color Printers of Flexible Packaging Materials

General Offices & Plant: **1401 4th AVE., NEW HYDE PARK, N.Y., PRIMROSE 5-8000** *Branch Plant:* **ADDISON, ILLINOIS** *Sales Offices in principal cities*

PRINTED CELLOPHANE • POLYETHYLENE • PLIOFILM • FOIL • ACETATE • in ROLLS • BAGS • POUCHES • ENVELOPES • SHEETS



YOU *can relax because the*
GILDA Filling Machine *never does!*

IT'S FAST

. . . filling up to *300 cans per minute!* Speed is adjustable over a wide range to synchronize exactly with your other machines.

IT'S ACCURATE

. . . to a *fraction of an ounce!* Can save you a ton or more of material every day.

IT'S FULLY AUTOMATIC

. . . *Turn it on and forget it;* numerous safety and protective devices make operation virtually foolproof.

Handles any powdered, granular or dry materials. Fills metal or fiber cans 4¾" to 7" in height . . . with change-over from one can height to another *in seconds!*

END YOUR FILLING PROBLEMS. WRITE FOR DESCRIPTIVE FOLDER TODAY!

Now manufactured by

POTTER & JOHNSTON COMPANY

PAWTUCKET, RHODE ISLAND

SUBSIDIARY OF PRATT & WHITNEY COMPANY, INCORPORATED

PRODUCERS OF PRECISION MACHINES FOR OVER 50 YEARS

Preferred by quality-minded printers everywhere who know they'll get consistently superior performance . . . sharp, clear reproductions . . . matchless beauty of color—*every time!* Developed and produced by the Celero Division of S&V, highly scuff-resistant gravure inks offer publication as well as packaging printers, unexcelled performance on a wide variety of surfaces — paper board, cellophane, foil, polyethylene, vinyl and other films. You, too, can depend on the controlled quality of S&V gravure inks. Be sure to specify them on the next job you run!

At your disposal . . . 65 years of experience to assure you of precision quality. Today, S&V occupies an unquestioned position of leadership in the manufacture of printing inks.

THE CELERO DIVISION OF

Sinclair and Valentine Co.

Main Office and Factory: 611 West 129th Street, N. Y. 27, N. Y.

OVER 35 BRANCHES PROVIDE SERVICE FROM COAST TO COAST

Meets every requirement for perfect protective "billboard" packaging!

More Sales Power Per Package

...with Waxed Paper

REMEMBER . . .

Waxed Paper is more than a wrapper. It billboards your brand, merchandises itself, sells itself. Waxed Paper is an advertisement with genuine appetite appeal. In fact—it's an appetizement!

All the protection, all the self-salesmanship packagers demand in modern frozen food wraps! No finer packaging known—and here's why!

- **Display**—Every package displays itself, sells itself! Waxed Paper pictures the product in brilliant full-color realism, promises a grand table treat, makes shoppers reach out and buy!
- **Protection**—Always uniform quality! Seals in, protects frozen freshness, flavor, texture, nutrition. Waxed Paper has low permeability to water-vapor and oxygen, bars the door to passage of liquids, impermeable to fats and oils. Resists acids and other corrosive food components as it excludes foreign odors and prevents transfer of food flavors!
- **Durability**—A really rugged wrap! Good resistance to mechanical damage. Maintains high tensile, tear, bursting, and wet strength even at lowest temperatures. Unaffected by cold fluctuations! Won't crack, tear, frost over, or lose desired flexibility in zero refrigeration. Seals hold tight through tough tests of shipping, deep cold, in-store and consumer handling. Eliminates returns, lost sales!
- **Billboards your brand**—Superior reproduction turns Waxed Paper wrappers into powerful point-of-sale pieces! Each package is a *billboard* in the store and in the home . . . sparking impulse sales and pulling repeat buyers with its strong appetite appeal, quick brand identification, proved selling features!
- **Low cost**—Lower initial wrapping costs combine with steady, dependable supply and other Waxed Paper advantages, pay off in higher *net* profits!

Waxed Paper teams up with the experience, facilities and services of America's top converters, delivers modern design packaging and product protection that results in more frozen food business for you! Suggested traffic-stopping *designs*, sales *ideas*, actual *samples*, complete *cost sheets*—they're all yours for the asking! So for expert packaging help, see your Waxed Paper salesman today. Or write or telephone us direct.

W
PROTECTS FRESHNESS AND FLAVOR
P

WAXED PAPER MERCHANDISING COUNCIL, INC., *38 South Dearborn Street, Chicago 3, Illinois, Telephone: STate 2-8115*

A & S Packaging Runs From SOUP to NUTS!

This is because Arkell & Smiths has the equipment and experience to design and manufacture in large or relatively small quantities packaging for every conceivable product.

The most important fact in today's retail marketing is that an attractive, informative, eye-catching package can put a product into the nation's shopping baskets quicker and cheaper than any other form of promotion. Arkell & Smiths excells in producing just this type of package.

At A&S you get a "packaged" service for all your packaging requirements. Send us a sample of your product, and we'll show you what we can do.

A S

ARKELL AND SMITHS

EXECUTIVE OFFICES: 500 FIFTH AVE., NEW YORK 36

Manufacturing Plants at:

Canajoharie, N. Y. • Wellsburg, West Virginia
Mobile, Alabama • Hudson Falls, N. Y.

"The Oldest Name in Paper Bags"

Background for packaging

Notes, quotes and comments

Just how impulsive is so-called impulse buying in food stores? A *Food Field Reporter* study reported to the recent annual meeting of the Grocery Mfrs. of America indicates that unplanned purchases are, nine times out of 10, not impulsive, but the result of plenty of study of the package and what it has to say. The analysis of 4,848 purchases at a Star Market in Monroeville, Pa., showed that only 11% of unplanned purchases were actually based on emotional reasons. And brand reputation was a decisive factor in four out of five unplanned purchases.

Bottle deposits on returnable beverage bottles may go up from two cents to five, if sentiment expressed among bottlers at their recent national convention takes hold generally. This would boost deposit outlay on a case of 24 bottles to $1.20—as much as the price of the product itself in some cases—and would likely react to the benefit of the no-deposit can and one-trip bottle.

'Despite all the lip service accorded merchandising in the latter years, the textile industry still retains the *production* attitude toward packaging, which, although it should be *engineered* from the production all through the distribution lines, is nevertheless a merchandising device in the final analysis."—*America's Textile Reporter.*

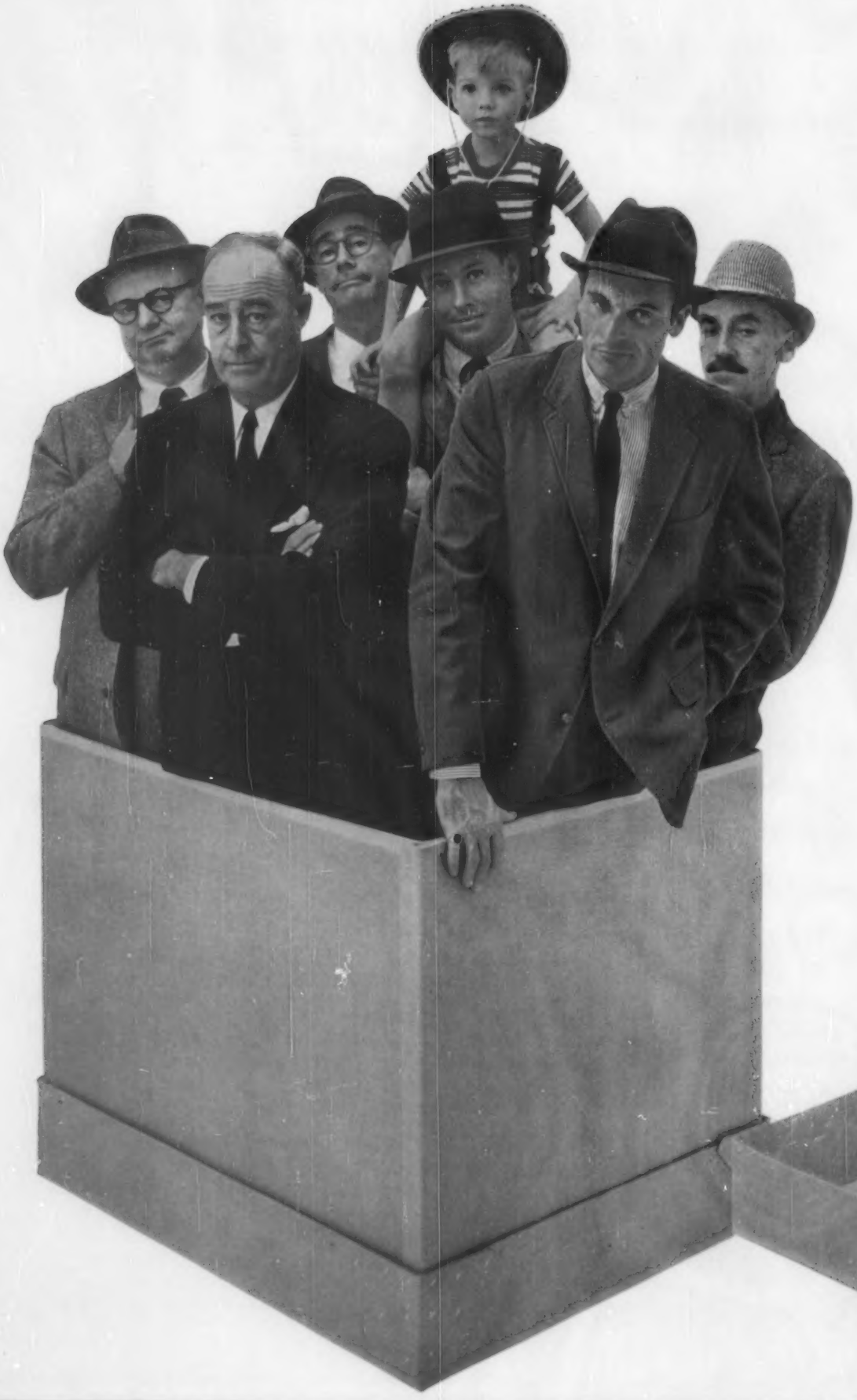
How important is package development? Just think what new specialty product developments have added to food industry's sales in just the last few years: frozen juices, $230 million; frozen cooked foods, $261 million; concentrated coffee, $323 million; dry milk, $50 million; aerosol deodorizers and insecticides, $38 million. Not one of those new products would have been a market practicability without some special achievement of packaging research.

Aerosol packagers were taken to task at recent annual meeting for failure to exploit their market possibilities. *Ralph A. Crane* of Du Pont reported on a nationwide Starch survey indicating that only one-third of deodorant users, 4% of burn-preparation users and 38% of paint users have been made aware that such products are now available in aerosol packages. Increased selling, advertising and merchandising effort is needed, Mr. Crane said.

Flexible packaging took a sudden downturn in September, as measured by manufacturers' census reports. Shipments of converted flexible-packaging products during the month were 9% below the figure of August, although they remained 3% above the September, 1955, total. Value of shipments this September was $31,749,000, as against $34,739,000 in the previous month. Does this reflect extra-heavy buying in August in anticipation of price increases?

Advice to food manufacturers from *Samuel Aidekman*, president of the highly successful Good Deal Supermarkets chain: "Mrs. Shopper is saying to us and to the manufacturer, don't tell me how to make something different. You make it different and I'll serve it. Don't give me homework to do; you do my work for me. I'll buy any food that is tasty if it saves me time in the kitchen."

New possibilities in the use of aluminum containers made by the low-cost impact extrusion method loom as result of Alcoa research discovery, indicating that it is possible to produce [*Continued on page 40*]



Big Boy...the St. Regis container that can carry 1000 pounds...

It's a corrugated board container . . . some people might call it a "carton."

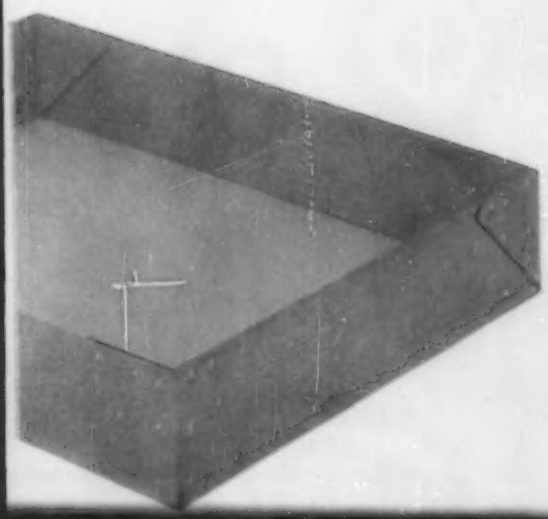
But it's a big one and a strong one, a real giant, able to carry 1000 pounds.

It was perfected for industry, to ship materials in bulk—safely and economically without contamination. So far, it is the Big Boy of the St. Regis line.

You'll hear of more and more unusual containers coming from St. Regis... bags with the strength of boxes and boxes that load like bags . . . and many other new developments.

For St. Regis is rapidly establishing itself as the pioneer of new uses in the world of paper and paperboard, of film and plastic. Masters of the art of packaging, we're constantly putting new ideas to work—to help Industry move its goods to market in better condition and at lower cost.

If you have a problem that bothers you—in packaging, shipping, storing, wrapping—let us know about it. You may be surprised how much we can help you. St. Regis Paper Company, Dept. M-1, 150 East 42nd St., New York 17, N. Y.



St.Regis
PAPER COMPANY
150 EAST 42ND STREET, NEW YORK 17, N. Y.

a thin surface cladding for cathodic corrosion protection, better finishing and easier joining. It is also now possible to clad high-strength parts, such as aerosol bottles, with a different aluminum alloy more suitable for all types of decorative finishing.

Packaging gripes of consumers were aired at a panel session of the United Fruit Co.'s Sixth Annual Food Forum. Home economists pointed out that food manufacturers are well aware of consumer complaints about hard-to-open and inconvenient-to-use packages and are working constantly to meet them, but are handicapped by costs, production equipment and facilities, and the fact that consumers still seem to ignore how-to-open instructions no matter how clear they are on the package.

Earnings of most container companies failed to keep pace with the continued general prosperity and rising dollar sales volume in 1956, says *Value Line Investment Survey*. Rising costs of both materials and labor, plus cool-weather effect on summer merchandise and general lag in appliance sales, are cited as factors. With recent price adjustments upward, however, container industry's earnings prospects for 1957 are more favorable, the survey says.

Highlights from the seventh semi-annual Homemaker Survey by the *Minneapolis Star & Tribune:* Liquid shampoos continue to gain at expense of cream shampoos; ice-cream buying shifts more heavily to food stores; fluoride tooth pastes made an impressive first-year showing.

A prediction that output of corrugated board will increase another 40% by 1965 comes from Battelle Memorial Institute. *Leonard M. Guss*, Battelle economist, estimates "conservatively" that by 1965 shipments of corrugated board should exceed 130 billion sq. ft. annually, in comparison with 93.5 billion sq. ft. in 1955. Continuing improvement in printability of corrugated containers, making them doubly useful as shipping and merchandising packages, is cited.

Growth of aerosols in the pharmaceutical field finds 50 products already on the market and a prediction from Dodge & Olcott that there will be 100 within six months, ranging from sunburn creams to antibiotics to steroid hormones. All types of aerosols will be used, says D & O, including glass, plastic, plastic-coated glass and metal.

Something new in joint promotions is due to break in February. Quaker Oats has a new pitch to housewives in the suggestion that Aunt Jemima Pancake Mix doesn't have to be stirred or beaten; just shake it in a plastic shaker. Wesson Oil joins in on cooking oil and stores will have a three-bin display fixture: one for Aunt Jemima, one for Wesson's and one for plastic shakers—which retailers may purchase from any source. A big opportunity for rack jobbers.

Never underestimate the spending power of the American woman. The chances are now three to two that she's the target of your package. A recent issue of *Fortune* estimates that the woman makes about 60% of all U. S. personal-consumption expenditures. Among other things, she spends $78.6 billion a year for food and tobacco.

New light on the advertising value of a package: "Each week three times as many people see the package of a nationally advertised product as read *Life* magazine. Every week the carton on a supermarket shelf is seen by four times as many people as read *Reader's Digest*. Week after week, almost as many people continue to see the package as see the most spectacular of spectaculars on TV."—*Gustav L. Nordstrom*, executive director, Folding Paper Box Assn.

Background for packaging

[*Continued from page 37*]

FIRST PRIZE

First award in the 1956 National Flexible Packaging Competition **(Cellophane Sheet and Roll Classification)** went to this eye catching Morgan-Jones package. Designed and developed by PACKAGE PRODUCTS, the unit contains dish cloths, towels, and pot holders, set in a plastic base suitable for re-use as a silverware tray. Overall wrap is durable 450 moistureproof cellophane, printed by flexographic process in striking gold, black, and white. For easy product identification, there's a large, die cut insert label, printed in gold and black.

Packaging like this — treating products from a merchandising viewpoint — wins prizes in sales, too. If **your** sales program can benefit from creative, sales directed packaging, get in touch with PACKAGE PRODUCTS.

Package Products

CHARLOTTE, N. C.

Converting

Films, foil and papers printed one to five colors, in rolls, sheets, bags or envelopes.

Sheets & Wraps

Printed film, foil and paper sheeted to desired size.

Bags & Envelopes

Single and double wall bags, with or without gussets; envelopes with or without tips.

Labels

Heat-seal, gummed, grease-proof, pressure-sensitive, die cut, in rolls or individually cut.

Box Wraps

Lithograph or letterpress printed, box wraps, bands, riders and inserts.

Plus complete, sales minded design facilities

Baby Playthings

Toddler Toys

Housewares

Modern House Fittings

Outdoor Living Aids

Containers & Packaging

Symbols of your potential through Tupper Corporation

Premiums

● Whatever your custom needs in plastics manufacturing, call on Tupper's wide experience and modern manufacturing facilities. Our large, up-to-date plants, equipped with the best production machinery, are available for materials, injection molding, extruding, vacuum forming, blow molding—and other advanced processes.

The Tupper Engineering Department has developed the greatest number of patents in the industry for polyethylene seals, closures, and dispensers—and other items in other plastics. This know-how can be tapped by you to place your plastic products in a position of leadership.

Tupper seals and other Tupper products are protected against unauthorized manufacture by about 150 U. S. and foreign patents and patents applied for, plus numerous trademarks and copyrights.

Do-It-Yourself Materials

TUPPER CORPORATION

TUPPER! Trade-mark

Manufacturers of: CONSUMER, INDUSTRIAL, PACKAGING and SCIENTIFIC PRODUCTS

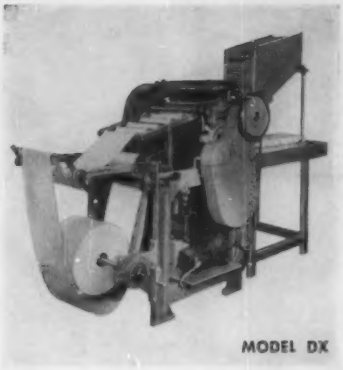
Factories, Laboratories and Sales Offices:
Massachusetts, Rhode Island, Florida, Montreal, New York

Address correspondence to:

Dept. MP-1
Tupper Corporation
Woonsocket, R. I.

or

Dept. MP-1
Tupper Corporation
225 Fifth Ave., N.Y.C.



MODEL DX

NEW AUTOMATION FOR SMALL-ROLL PRODUCTION

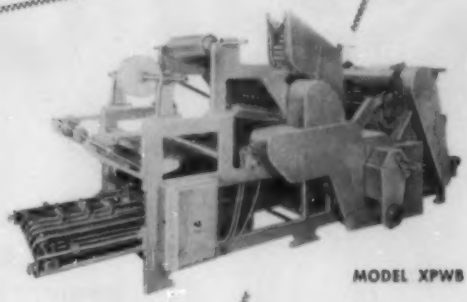
PRODUCTION CONTROL — You can set up any required schedule by the hour, day, week or month and know that you'll meet it . . . without operator fatigue and without "extra" operations. Many Schultz Automatics are used 'round the clock!

QUALITY CONTROL — Schultz Automatics deliver uniformly neat, accurately measured rewound or fully labeled and wrapped rolls.

In small-roll production, Automation means complete, fully automatic control of both quality and quantity of your product.

Right now, you can put automation to work for you with a Schultz Automatic Rewinding Machine, designed in a wide range of models to meet virtually any specific requirement.

WHAT ARE THE MOST IMPORTANT ADVANTAGES OF THESE FULLY AUTOMATIC SCHULTZ MACHINES?



MODEL XPWB

ECONOMY CONTROL — Schultz Automatics, through automation and high constant production of quality rolls can produce your product at surprisingly low cost! The three Schultz Automatics illustrated typify the many models available to meet your needs.

IF YOUR PRODUCT STARTS WITH A WEB AND ENDS IN A ROLL, IT WILL PAY YOU TO CONSULT S E C. WRITE.

FILMS . . . FOILS . . . CELLOPHANES . . . GIFT, SHELF, COATED, WAXED, CHART AND OTHER PAPERS

MANUFACTURED AND SOLD EXCLUSIVELY BY

Schultz

engineering corp.

190 BANKER STREET • BROOKLYN 22, N. Y.

Pioneers and Originators of Fully Automatic Rewinding Equipment

almost every meat product . . .

has more glittering display value . . .

greater heat-and-serve consumer convenience . . .

when it's in a proven-by-sales package by . . .

The Plus Container

EKCO-ALCOA CONTAINERS Inc.
Wheeling, Illinois

trademark

EKCO is the registered trademark of Ekco Products Company. ALCOA is the registered trademark of Aluminum Company of America. The corporate name and combination mark, EKCO-ALCOA, is used under license to the manufacturer by each of these companies.

PARDON US, BUT . . . IT'S GONE TO OUR HEAD

TROL would still be our favorite hair dressing even if we *didn't* print the above label. However, it is more than coincidence that the labels on so many of America's best-liked products started their bright sales careers on EVER READY presses—to the pleasant hum of some twenty million labels each day.

Labels are our business—our *sole* business—and have been so for over forty years. Our design facilities, research, production and delivery schedules are all concentrated on labels. *One-stop-shopping* for labels at EVER READY assures you experienced, dependable cooperation through every stage of your label problem, from basic idea to finished, professional container identification. *We'd like to work with you.*

Let us send you, *without the slightest obligation,* ☐ The Story of 8 Important Red-E-Stik Pressure Sensitive Applications ☐ The Ever Ready Label Idea Kit ☐ Samples.

EVER READY LABEL
CORPORATION
10 EAST 49TH STREET, NEW YORK 17, NEW YORK

this is **LEADERSHIP!**

DIXIE'S
RESEARCH STAFF
and Packaging Specialists

work together
to give your
product
more protection
and your
package more
appeal

Dixie's Team of Specialists have developed many innovations in the flexible packaging field, and are constantly searching for new refinements and improved applications to produce for you the finest protection for your product and the greatest sales appeal for your package.

If your product calls for flexible packaging, why not call for Dixie, and let our Team of Creative Designers and Packaging Engineers offer our help.

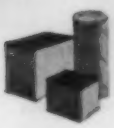
DIXIE
Wax Paper Company

DALLAS, TEX. . . . MEMPHIS, TENN. . . . WASHINGTON, N. J. . . . BURLINGAME, CALIF. . . . MEXICO, D. F.

PROGRESS IN PACKAGING

SEFTON
FIBRE
CAN CO.

New ways to cut packaging costs, to improve product protection and *sales*—the goals of continuing research in package engineering and design.



St. Louis · New Orleans
Portland, Oregon · Piqua, Ohio
Jeffersonville, Ind. · Berkeley, Calif.

glass containers move more food!

Use Anchorglass® *containers sealed with* ANCHOR® *caps.*

FOOD products move out in greater volume faster when packed in glass. There are three important reasons why ... the transparency, protection and convenience features inherent in the glass package. It shows the contents with all their tantalizing eye and appetite appeal. It invites inspection .. reveals quality and size ... whets desire ... promotes impulse sales. It safeguards the purity, freshness and true flavor of even the most delicately flavored foods. It's a completely sanitary package. And it's easy to open, easy to use, easy to reseal ... leftovers can be safely stored in the original container. Surveys prove that women prefer glass-packed foods. Why not take advantage of this preference? You will move more of your products by doing so.

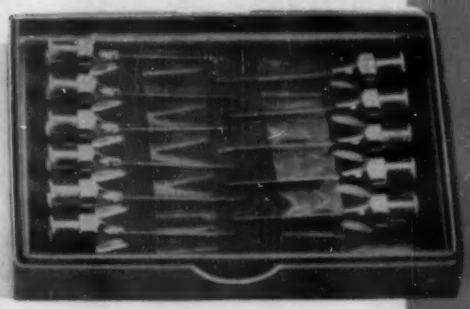
ANCHOR HOCKING

GLASS CORPORATION

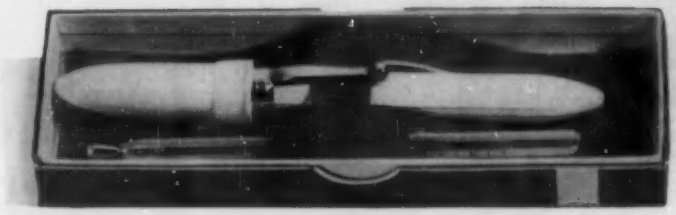
Lancaster, Ohio

Rowell Boxes

Syringe Box



Needle Box



Thermometer Box

for distinction
and utility

E. N. Rowell Co. Inc.
Batavia, N. Y.

Canisters, round and square set-up boxes for every purpose

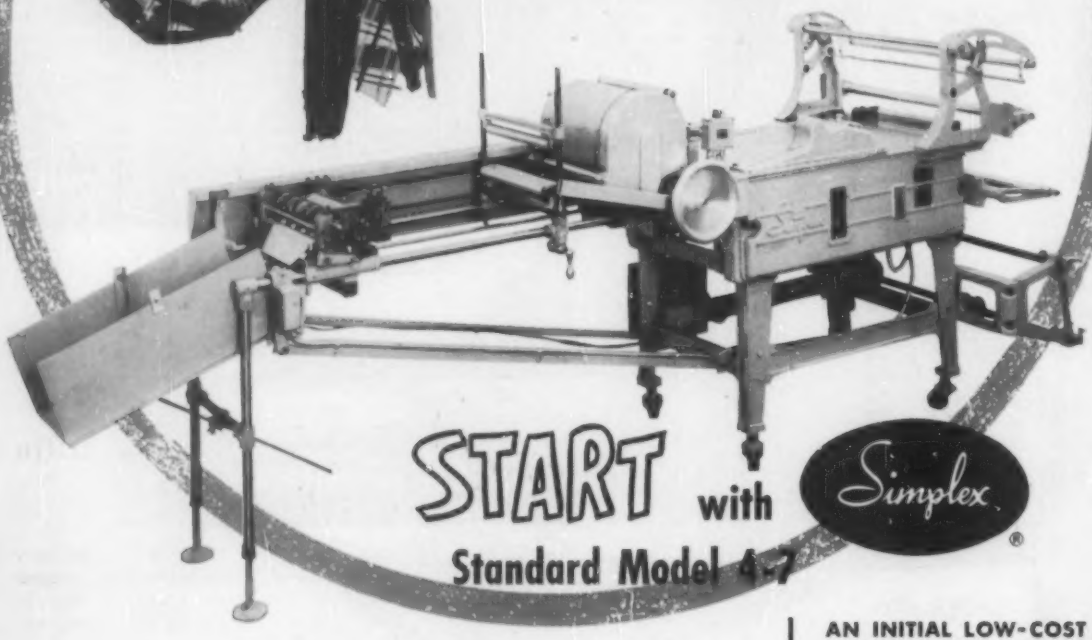
AYE! You Can Have

A LOW-COST Poly Bag Machine

For

- **short runs**
- **additional capacity**
- **production fill-ins**

—at only $3330.00 *



START with Simplex®

Standard Model 4-7

The simple basic Simplex Standard Model 4-7 Poly bag maker, though *low in cost* is *not built to a price*—but *for rugged performance*. It is the same popular machine that has proved itself as the "work-horse" of the industry. Furnished without any accessory attachments it produces quality bags from tubing, to expedite small runs, added capacity or production fill-ins. Yet, any of the standard Simplex attachments can be installed at a later date, as the need rises. Investigate Model 4-7 today. Write for full details.

*F.o.b. Oakland

AN INITIAL LOW-COST INVESTMENT Permits You To Add: (at a future date)

1. **ELECTRIC EYE** for registered printed stock.
2. **CENTER SEAL** for forming bags from flatstock.
3. **AUTOMATIC STACKER** for stacking and count-sorting production runs.
4. **MULTIPLE HOLE PUNCH** for proper bag ventilation.

All Standard Simplex Attachments

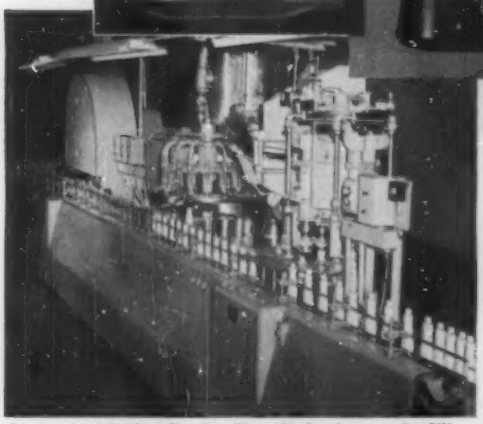
Simplex®

SIMPLEX PACKAGING MACHINERY DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION
534 - 23rd AVENUE, OAKLAND 6, CALIFORNIA
Foreign Sales: FMC Export Dept., P. O. Box 760, San Jose 6, Calif. (Cable Address: FOODMACHIN)

fmc®

REPRESENTATIVES IN ALL PRINCIPAL CITIES

REVLON'S WINNING ANSWER IS . . .



Synchronized bottling line handling air cleaning, gravity filling and rotary capping at Revlon's plant in Passaic, N. J.

PNEUMATIC for cleaning, filling, capping and labeling

There's a very practical side to REVLON'S brilliant success with its notably glamorous products. Smart advertising, promotion and merchandising has been matched by skilled production — including, in the packaging phase, highly effective use of PNEUMATIC equipment.

Cleaning, filling, capping and labeling of REVLON containers calls for precision performance, due to the "high style" nature of the containers, caps and labels. Gentle handling at uninterrupted high speeds is an in-built result of the advanced design and exceptionally expert engineering that are the very heart and soul of PNEUMATIC machines. America's leading producers of both wet and dry products use more PNEUMATIC equipment than any other make, by far — simply because PNEUMATIC means "lower cost per container" operation, every time.

PNEUMATIC SCALE CORP., LTD., 82 Newport Ave., Quincy 71, Mass. *Also: New York; Chicago; Dallas; San Francisco; Los Angeles; Seattle; Leeds, England. Canadian Division: Delamere & Williams Company, Ltd., Toronto.*

PNEUMATIC

Packaging and Bottling Equipment

AUTO WRAPPERS

MULTI PURPOSE AUTOMATIC WRAPPING MACHINES

ARE SUPPLIED TO THE FOLLOWING TRADES

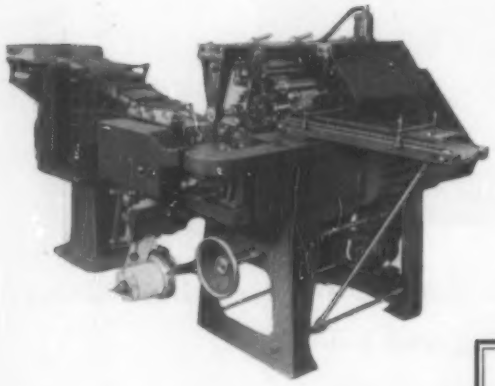
FOOD • TOILET REQUISITES • CONFECTIONERY • TOBACCO • SOAP, PERFUMERY & COSMETICS • ICE CREAM • PHARMACEUTICAL • BISCUIT MANUFACTURE

WE ARE EXHIBITING AT THE
Packaging Exhibition
23 Jan.–1 Feb. 1957
National & Empire Halls
OLYMPIA
London

STAND No. 2
ROW A
GROUND FLOOR

JUST ONE OF A WIDE RANGE OF AW WRAPPING & PACKAGING MACHINES

TYPE "R"



TO ROLL-WRAP ALL TYPES OF TABLETS i.e., COMPRESSED LOZENGES, ROUND MOULDED CHOCOLATES and SWEETS, ETC.

IN PAPER, FOIL, CELLULOSE FILM FED FROM THE REEL

SPEED 70-90 PER MIN.

INSTALLED THROUGHOUT THE FIVE CONTINENTS!

For further particulars in the U.S.A. contact—

WESTERN AGENT: ANDREW BROWN, 5743 LINCOLN AVE., HOLLYDALE, CALIFORNIA

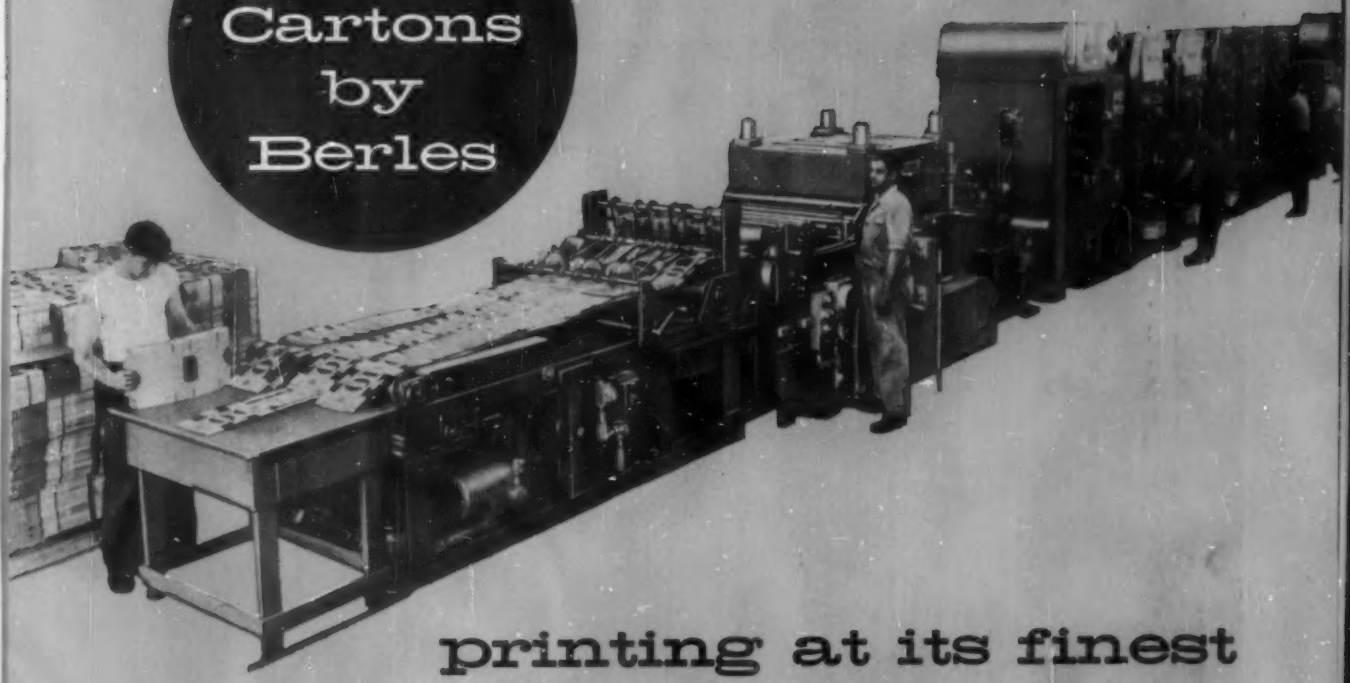
EASTERN AGENT: A. S. JEWETT, 505 FIFTH AVENUE, NEW YORK 17, MU 7-4759

or write direct:

AUTO WRAPPERS (NORWICH) LTD • EDWARD ST • NORWICH • ENGLAND

Telephone: Norwich 29222 **Grams: Autowrap NORWICH**

Gravure Cartons by Berles



printing at its finest

And now, with two high speed installations already turning out colorful cartons by the millions, Berles adds gravure to its list of modern facilities.

Beautiful printing, faithfully reproducing your art, gives food cartons mouth-watering realism . . . gives any carton a richness of color never before thought possible.

Capture the true beauty designed into your package with Berles gravure – 6 color rotary printing – unmatched speed, precision, economy, and, above all, printing quality.

May we show you samples? Write or phone for Berles' new 24-page brochure, describing all the Berles facilities.

FOLDING PAPER BOXES
FOOD CARTON SPECIALTIES
DISPLAY CONTAINERS
CELLOPHANE WINDOW CARTONS
MOISTURE & GREASEPROOF CARTONS
PARAFFINED CARTONS

Berles Carton Co., Inc.

88 Fifth Avenue, Paterson 4, New Jersey

New Jersey: MUlberry 4-6430 New York: CHickering 4-3983

Cochran Foil Carton Board...

for Every Packaging Need!

When a folding carton solves your packaging problem, Cochran, as a result of its foil carton board development program, can help you choose the stock that best satisfies the requirements of your product.

Suitable for letterpress, offset or gravure printing, Cochran foil carton board is available from 15 pt. to 30 pt. in rolls up to 54" wide by 60" O.D. or sheets up to 54" x 72".

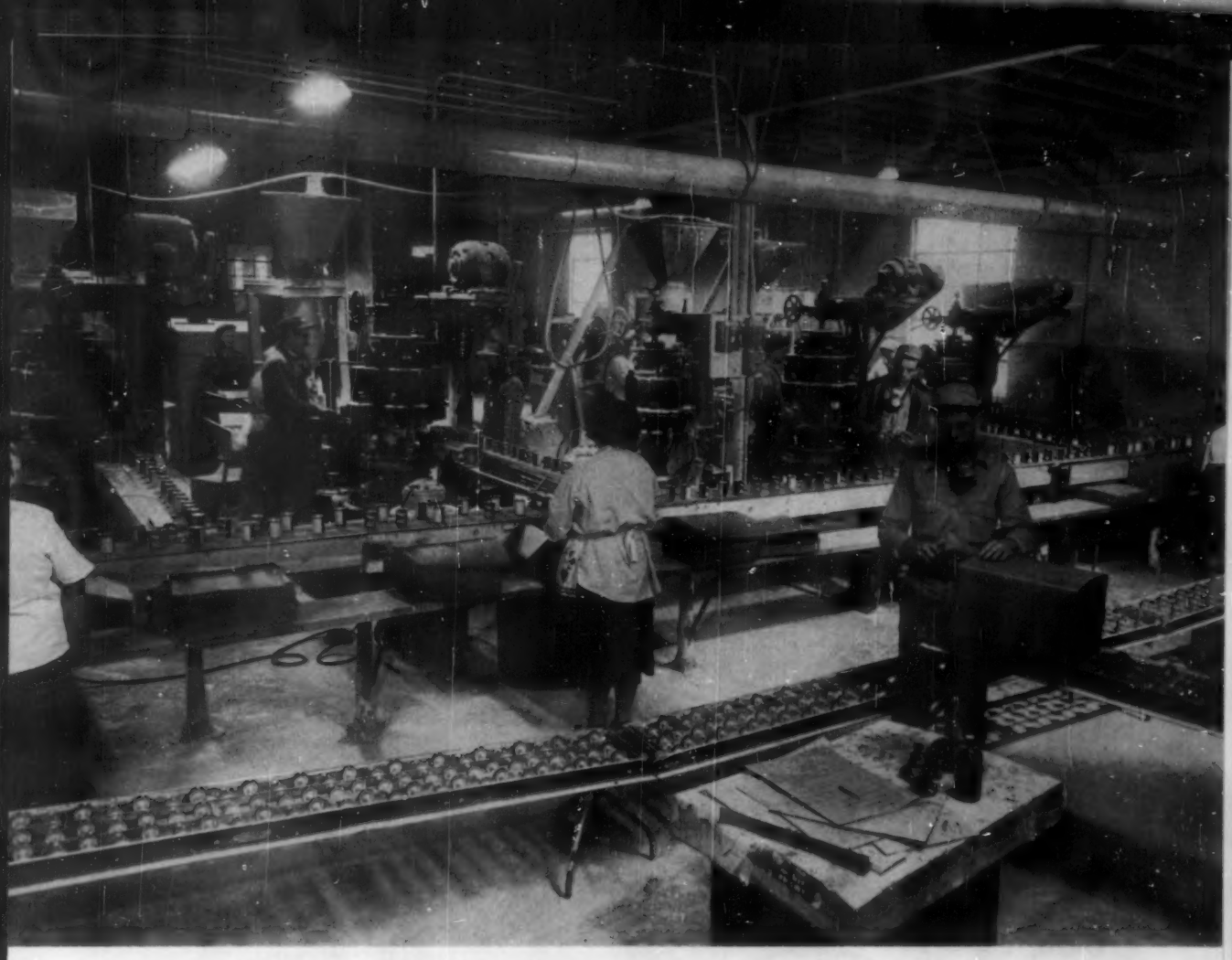
Let us discuss the applications of foil carton board with you. *Write for "Foil Carton Board Manual", 1430 S. 13th St., Louisville 10, Ky., Dept F-1.*

Cochran ALUMINUM FOIL

Cochran FOIL COMPANY
Incorporated

PLAIN, LAMINATED, COLORED AND COATED FOIL FOR
PACKAGING AND INDUSTRIAL APPLICATIONS • COILED ALUMINUM SHEET

WATCH COCHRAN FOR NEW DEVELOPMENTS IN FOIL



Custom compounding and packaging of Liquids · Powders · Pastes · Solids

Packaging in cans - glass - tubes - foils - films - papers - envelopes - bags - strips and combination materials

Whether you're processing millions of units or just a few thousand—when you find your packaging requirements a nusiance, bothersome and costly—CHEM-PACK can compound and package your liquids, pastes and solids on a temporary or permanent basis. CHEM-PACK's modern equipment can package your products in every type of packaging container and material.

CHEM-PACK's operations include a wide range of modern, high-speed equipment for both compounding and packaging your product, fully utilizing your own merchandising methods.

CHEM-PACK's plant location assures quick and economic shipping to all major markets.

Submit sample of your product for prompt quotation—no obligation on your part.

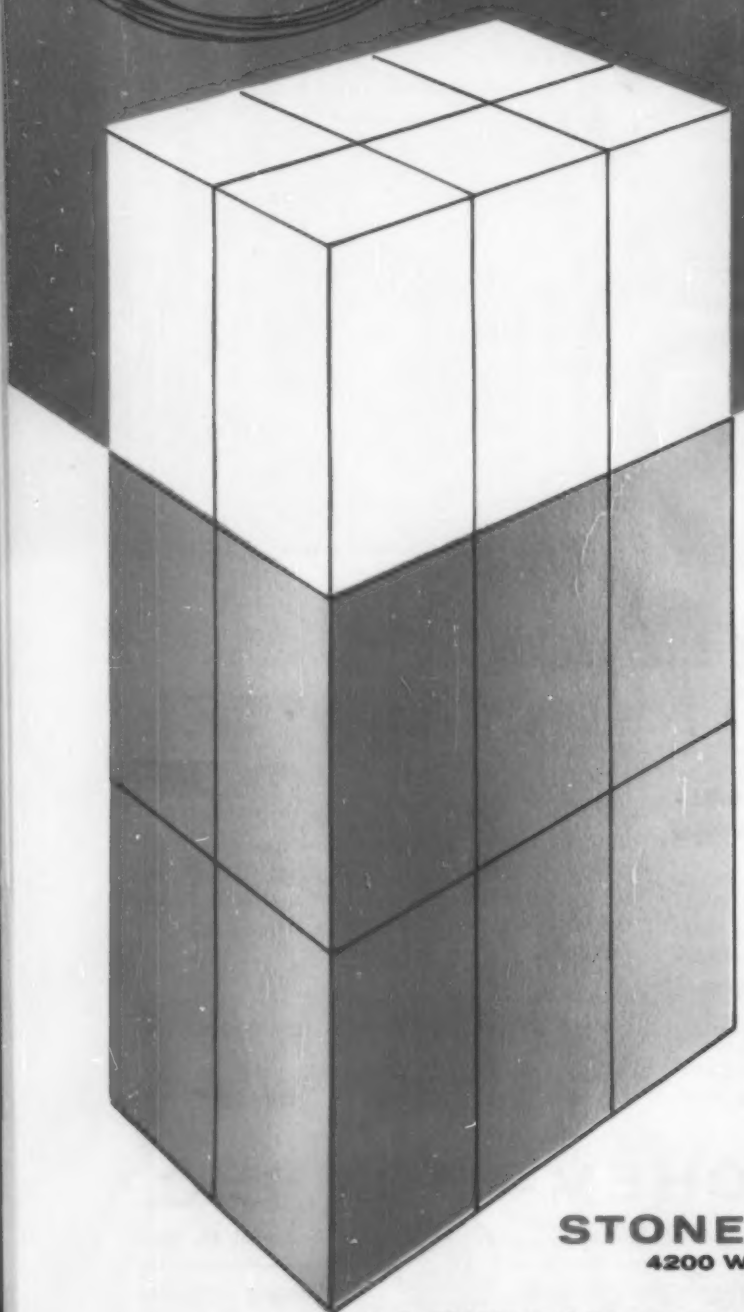
CHEM-PACK, INC.

408 Blade Avenue — Cincinnati 16, Ohio

Manufacturing Chemists — *Packaging Specialists*

1/3 more stacking strength

even under humid conditions



save space and money with new

Stone-Cor CONTAINERS

The added rigidity, toughness and strength of containers made of Stone-Cor is retained to a great degree even under the most extreme humid conditions. This development of scientifically treated board has enabled Stone to produce containers with exceptional stacking strength. It also gives added product protection without increasing the container weight. Stone-Cor has solved the stacking problems for many of America's leading companies. Find out how it can benefit your company, too.

Send for free Stone-Cor data sheet

Send for your copy of the special data sheet on Stone-Cor Corrugated Containers. It explains in full detail the many advantages of this new container development.

STONE CONTAINER CORP.

4200 West 42nd Place, Chicago 32, Illinois

Sales offices in most principal cities

Other divisions and subsidiaries:

W. C. Ritchie and Company
Chicago, Illinois
Folding cartons, set-up boxes, fibre cans, tubes, spools, cores, transparent boxes, and paper specialty displays

Western Paper Box Company
Detroit, Michigan
Corrugated containers, folding cartons and set-up boxes

365 good wishes to you

set the tempo for '57—
speed up your
labeling operations
with **'able-stik'**

ABLE-STIK CALENDAR—sticks without moistening to smooth, clean, dry surfaces. Bend tab, peel off backing, press in place on wall, desk, mirror, memo book, etc.

HOLIDAY CHEER
FOR THE
NEW YEAR

• 1957 •

JANUARY						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

FEBRUARY						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

MARCH						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24/31	25	26	27	28	29	30

APRIL						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

MAY						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

JUNE						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24	25	26	27	28	29

JULY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

AUGUST						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

SEPTEMBER						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

OCTOBER						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NOVEMBER						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

DECEMBER						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Use this no-moistening 'Able-Stik' calendar. Note how well it sticks to most clean smooth surfaces. Check the ease and speed of application. Modern NO-MOISTENING pressure-sensitive labeling can be applied to many of your special and routine operations. May we demonstrate?

Want extra calendars? They're yours for the asking.

WHICH OF THESE WOULD YOU LIKE?

- ☐ 15 CASE STUDIES, showing interesting uses of pressure-sensitive labels.
- ☐ THE "ABLE LABELER"—4 times-a-year newsletter—keeps feeding you fresh ideas.
- ☐ HISTORY OF LABELS—by Stanley C. Hollander, Ph.D., University of Minnesota.
- ☐ INTERESTED IN DEMONSTRATION

Sales Offices: Boston, Detroit, Philadelphia
'Able Labels' are manufactured and distributed in Ohio by Allen Hollander Midwest Corp., 812 Huron Rd., Cleveland 15. Phone: SUperior 1-0736.

ALLEN HOLLANDER CO.

'able labels'...to advertise, sell, ship or mark any product

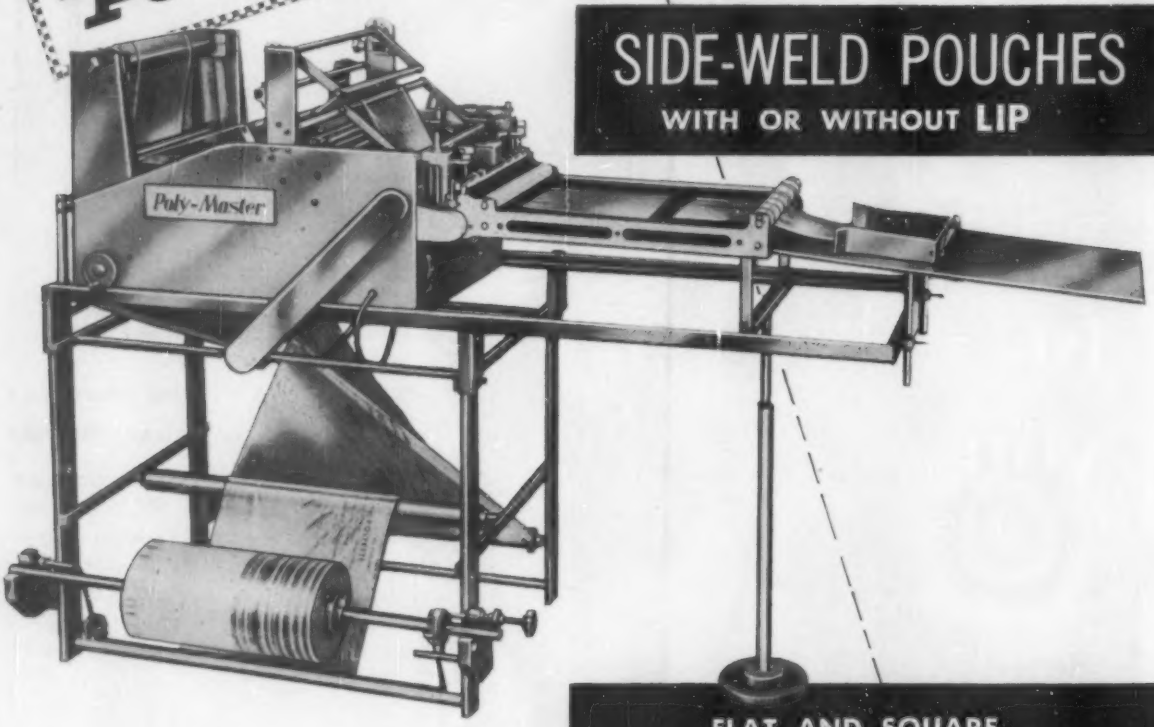
Dept. MP 385 Gerard Avenue, New York 51, N. Y. MOtt Haven 5-1818

A SIMPLE INEXPENSIVE DUAL-PURPOSE CONVERTING MACHINE THAT PRODUCES

"POLY-MASTER"

NOW AVAILABLE!

A New Machine For A New Market!



SIDE-WELD POUCHES
WITH OR WITHOUT LIP

FLAT AND SQUARE
POLYETHYLENE BAGS

- Especially Strong Beaded Seals for Pouches.
- Pouches From Slit Tubing Or Sheeting — Bags From Flat Or Gussetted Tubing.
- Pouches Feature Adjustable Lip For Easy Opening And Filling.
- Standard Equipment Includes Mechanical Counter, Static Eliminator And Electric Eye. Perforator Optional.

Poly-Master provides the converter with the most simple, compact, economical means of making both flat and square bags *and* the new and very popular side-weld pouches (printed both sides) that are proving so effective for textile as well as other products.

Easy to adjust, versatile in application, far less expensive than any other precision equipment of a comparable nature — Poly-Master creates new markets and profit potentials in polyethylene.

Poly-Master, companion machine to the well-known Poly-ette, is another essential adjunct to all converting operations. Write or call for an appointment at our N. Y. demonstration rooms.

WAL-GAN DIVISION

CONAPAC CORPORATION

SALES AGENTS FOR WALGAN MACHINE CORPORATION

120 EAST 13th STREET, NEW YORK 3, N. Y.

"May we help you?"

Flexographic Ink Information Center

We'll gladly give you detailed information about any of these time-proved BBD Inks

Whenever you want authoritative information about flexographic printing inks, ask BBD. As flexographic ink specialists we can give you the right answers to your questions . . . and the right inks to suit your special needs too. Specialized laboratory research and "shirt-sleeve" technical help right at your press are also available from BBD as valuable extra services.

HERE ARE BBD'S MOST POPULAR STANDARD INKS

- **EXCELLOPAKE** Opaque pigment ink for CELLOPHANE (except plain uncoated and Saran-coated), GLASSINE, BOXBOARD, KRAFT, SULPHITE and BOND PAPERS
- **EXCELLOBRITE** High-gloss multi-purpose ink for face-printing CELLOPHANE (except Saran-coated), POLYETHYLENE, GLASSINE, FOIL and HARD SURFACE PAPERS
- **VELVATEX** Alcohol-soluble matte-finish ink for FEATHERWEIGHT TISSUE, other ABSORBENT PAPERS and BOARD. Doesn't pucker stock; withstands corrugation
- **PLIOPAKE** Pigment ink for PLIOFILM, SARAN, POLYSTYRENE and POLYVINYL CHLORIDE films
- **"400 Series" EXCELLOPAKE** Multi-purpose pigment ink . . . may be used for CELLOPHANE (except Saran-coated), POLYETHYLENE, ALUMINUM FOIL and PAPER
- **TRANSLUSTRO** Transparent dye ink for printing on GLASSINE, BOXBOARD and PAPER. Has very high color values
- **THERMOFAST** Heat-resistant ink for face-printing of CELLOPHANE that will be heat-sealed over printed areas
- **ACETOPAKE** Pigment ink for CELLULOSE ACETATE film
- **EXCELLOPAKE "400 X-TRA"** Premium-grade multi-purpose ink featuring extra whiteness and opacity, stronger adhesion, greater resistance to blocking, heat, moisture and low temperatures
- **HYDROTONE** Water-type matte-finish ink for TISSUE and other ABSORBENT PAPERS, CARTON and CUP STOCK. Withstands corrugation
- **FLEXOKRAFT** Pigment-dye ink for KRAFT PAPERS, LINERBOARD, BOXBOARD, GLASSINE, etc.
- **FOILBRITE** Transparent dye ink for ALUMINUM FOILS. Exceptionally color-strong

For FREE "TECHNICAL DATA SHEETS" on any of the BBD FLEXOGRAPHIC INKS described above, write to *BENSING BROS. and DEENEY, 3301 Hunting Park Avenue, Philadelphia 29, Pa.*

Bensing Bros. and Deeney

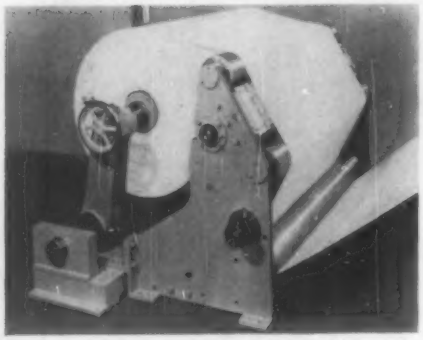
Flexographic Ink Specialists

PHILADELPHIA • CHICAGO • SAN LEANDRO, CAL.
CAMBRIDGE, MASS. • MONROE, LA.

DISTRIBUTORS:
MANTON BROS., Toronto, Canada
TRENAL CO., Brussels, Belgium
COLORA, LTD., Berne, Switzerland
PEREZ TRADING CO., New York (Export)
PAMCO, INC., San Francisco (Export)

unwind stands
FOR ALL PURPOSES

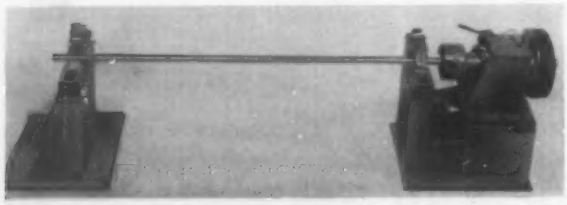
The Dusenbery line of unwind stands is complete. Constant tension, continuous, shaftless surface or center unwinds are available for every purpose. A few typical machines are illustrated here. They are of the latest design, incorporating exclusive features which will improve operation of your present equipment. Complete information and literature available.



MODEL 690 UNWINDER

THE ULTIMATE IN SHAFTLESS SURFACE CONSTANT TENSION UNWINDING

For Slitters, Waxers, Laminators, Rewinders, Printing Presses, etc.

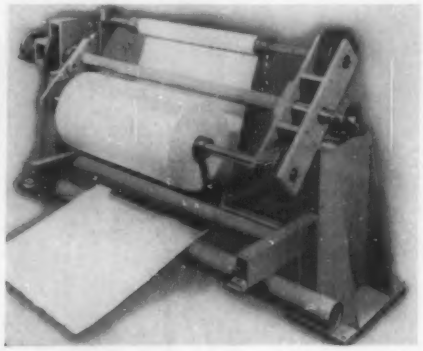


MODEL 590 UNWIND STANDS

HEAVY DUTY — AIR OPERATED

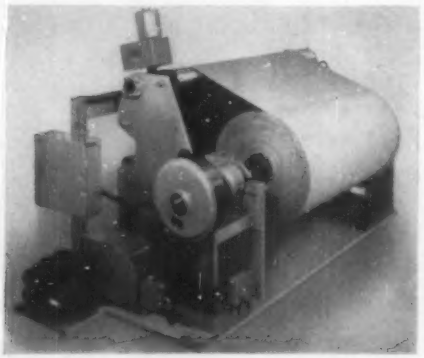
For Slitters, Laminators, Waxers, and Printing Presses

Can be provided with Roll-A-Way feature. This can be used in tandem for practically continuous unwinding.



MODEL 561
CONTINUOUS UNWIND STAND

For continuous unwinding into any web processing equipment.



MODEL 704
AIR OPERATED UNWIND STAND

For extremely accurate edge guiding and tension control, when used behind Slitters, Printing Presses, Laminators, Coaters and any Web Processing Equipment.

Send for Complete Information Today!

Dusenbery
CONVERTING EQUIPMENT

JOHN DUSENBERY CO., INC., 275 GROVE AVE., VERONA, N.J. Tel. CEnter 9-3900

SOME PACKAGES PERMIT GREATER

SALES VERSATILITY

THAN OTHERS . . .

With Ready-Peel®—the patented new tube decoration by Wirz that peels off in seconds! Attractively labeled drug products can also become profitable prescription sales with a quick, easy label change by doctor or druggist. Labeling costs are cut right down the line—from manufacturer to retailer.

Perhaps the versatility of Ready-Peel individualized tube decoration can broaden the profit margin for your products. It's readily adaptable to products outside the pharmaceutical field. Talk it over with Wirz tube representative.

Write us today about your special packaging needs.

COLLAPSIBLE METAL TUBES AND PLASTIC MOLDING

ALSO RIGID CANS AND IMPACT EXTRUSIONS BY AMERICAN EXTRUSION CORPORATION, DIVISION OF A. H. WIRZ, INC.

A. H. WIRZ Inc.

4th and Cole Streets, CHESTER, PA. • Also CARROLLTON, KY.

NEW YORK • CHICAGO • LOS ANGELES • MEMPHIS • HAVANA

TRY FOIL KRAFT!

THEY'RE THE LARGEST SUPPLIER
OF RIGID FOIL CONTAINERS
TO THE FROZEN FOOD INDUSTRY

How did Foil Kraft get that way? Simply by taking pains to make *every* customer a satisfied customer—from frozen food's largest processors right on down.

And that means Service.

The sort of service you can count on for fast deliveries or technical help with your own production problems. The kind of convenience you expect in being able to choose from a complete line of top-quality rigid foil containers. The type of emphasis to your individual problems of design that spells extra sales, added economies.

DISTRIBUTORS: *Foil Kraft ads like this build business for you every month in major publications. Remember, with Foil Kraft, the business you get is the business you keep... with customers large or small. Write now for our full-line catalog.*

See "THE KAISER ALUMINUM HOUR." Alternate Tuesdays, NBC Network. Consult your local TV listing.

Kaiser Aluminum

FOIL KRAFT DIVISION

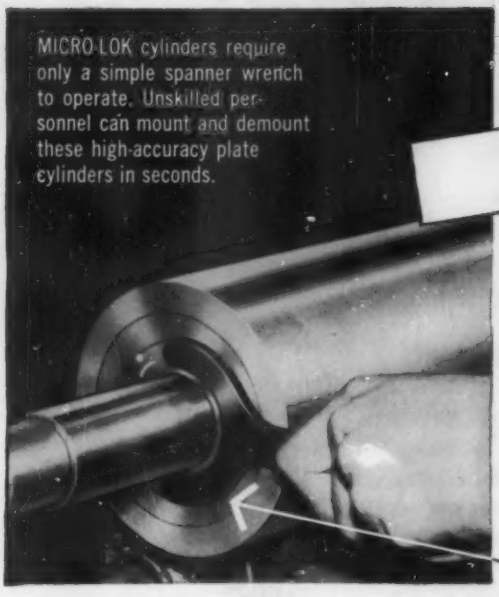
GENERAL SALES OFFICE
CHICAGO — 919 N. Michigan Ave. ..... MOhawk 4-6900

SALES OFFICES
OAKLAND — 1924 Broadway ..... TWinoaks 3-4600
LOS ANGELES — 900 Wilshire Blvd. ..... Madison 6-4801
NEW YORK — 300 Park Ave. ..... Plaza 9-1100
BOSTON — Statler Office Bldg. ..... Hancock 6-7255

PLANTS ..... WANATAH, INDIANA and LOS ANGELES, CALIFORNIA
OR CALL YOUR NEAREST KAISER ALUMINUM SALES OFFICE

PAMARCO

MICRO-LOK



MICRO-LOK cylinders require only a simple spanner wrench to operate. Unskilled personnel can mount and demount these high-accuracy plate cylinders in seconds.

The Industry's Fastest, Most Accurate

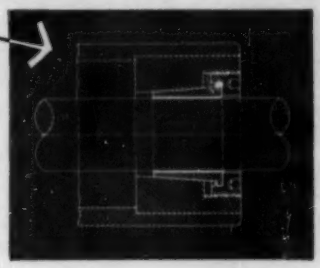
DEMOUNTABLE

PATENT PENDING

PLATE CYLINDERS

- **MOUNT AND DEMOUNT IN SECONDS**
- **NO SKILL REQUIRED TO OPERATE**
- **RETAIN ACCURACY IN CONTINUOUS SERVICE**

When locked, cylinders form one solid joint similar to integral cylinders. Micro-Loks require no special shafts and can be used on any width shaft. No skill is required to lock up. Simple, foolproof principle guarantees the same close tolerance on accuracy, time after time, with just a twist of the wrist. Performance-proven at high speed on toughest printing jobs. New bulletin on request, write today!



MICRO-LOK OFFERS EXCLUSIVE ADVANTAGES –

- **Highest accuracy—closest concentricity tolerances**
- **Always integral with each cylinder and remain in cylinder permanently**
- **Absolutely foolproof, no heating required— no fitting of "adapters"**
- **Available in lightweight alloys or steel**
- **Mounting tables, shafts and accessories available**

MICRO-LOK CAN BE UNLOCKED AND REGISTERED IN SECONDS WHILE IN THE PRESS –

When locked, cylinders form a solid joint. Press-proven for accuracy at high speeds.

A twist of the wrist unlocks the cylinders in a split second. Only a Spanner wrench is required.

A time proven mechanical feature provides positive locking. Locking device is integral part of cylinder, yet leaves end face flush.

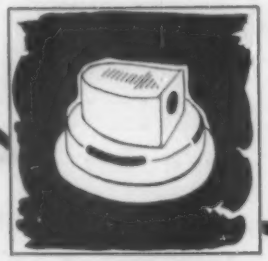
PAMARCO CUSTOM-CUT STEEL GEARS – made in our own plant . . . insure accurate register. Specify them when ordering plate rolls.

Paper Machinery and Research · Inc

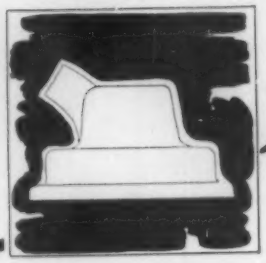
1014 OAK STREET, ROSELLE, NEW JERSEY

PRECISION INTEGRAL ROLLS FOR PRINTING, PACKAGING AND GENERAL INDUSTRIAL SERVICE

NOW! Pres-O No. 500 Series Valve IN A NEW DESIGN!



with advantages that will help to further your product's popularity



- ✓ ONE VALVE — different buttons to suit *any* product
- ✓ NEW VALVE ACTION—controls flow rate from 3/10 gram per second (hair spray—colognes) to 1 gram per second (insecticides — room fresheners)
- ✓ NEW AND POSITIVE CONTROL of spray direction
- ✓ NEW LOW DISPENSING RATE —gives consumer economy without affecting Series 500's *fast loading properties*

HAIR SPRAY
DEODORANTS
COLOGNES
RESIDUALS
FOAM
THREE-PHASE

PRESSURE FILLING is for the WISE birds!

Pressure filling with Pres-O equipment gives high speed, economical and SAFE loading with *any* type of propellant.

Pres-O equipment is designed and engineered for use with propanes, butanes, alcohol and other combustible materials.

No electrical controls. Air operated. Start and Stop controls are located on *outside* of machine. Handles containers automatically, including crimping and evacuating.

This new Pres-O 500 Series has met acclaim from all who have seen it. *You too,* will see it as an important additional selling point for your product.

All over the world more and still more manufacturers are turning to Pres-O because it offers advantages not found in any other valve.

Write today for full information on

Pres-O: THE BETTER AEROSOL VALVE

OIL EQUIPMENT LABORATORIES, INC.

600 PEARL STREET
ELIZABETH, NEW JERSEY

THE
PEAK
OF
DEPENDABILITY

for the best quality

aluminum foil

Economical semi-automatic labeling for short runs and frequent job changes

PONY LABELRITE*

Up to 60 LABELS PER MINUTE

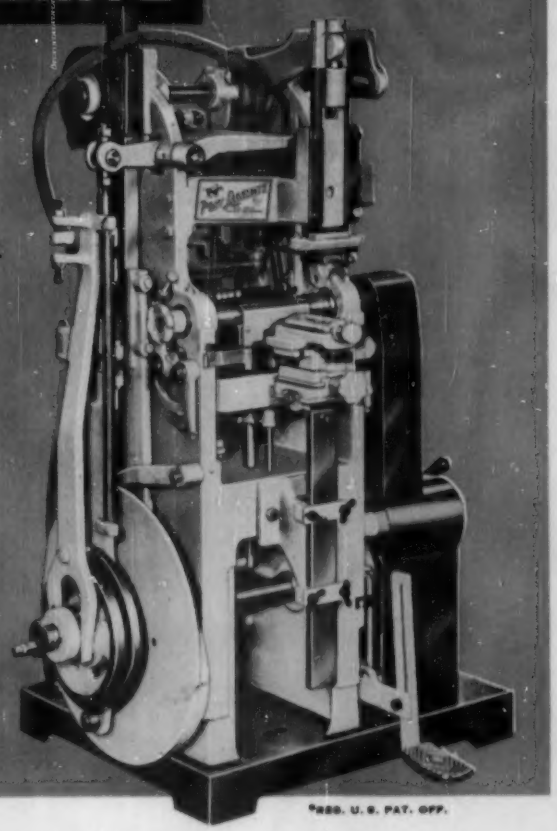
Exclusive vacuum principle delivers fast, precision labeling. Uniform label pick-up, precise label placement, complete elimination of excess glue.

Applies labels to recessed, paneled, convex or concave surfaces. Handles foil, varnished or embossed labels. Can be used with nearly all types of products or containers.

Simple, low-cost change parts; 15 minute change-over. Ask for details, proof, demonstration.

Adds tremendous versatility to your packaging operation.

- Handles more types of labeling.
- Mechanizes more kinds of jobs.
- Works with a wider range of labels, products, packages.



See how many applications you have for this money-saving, many-purpose machine

- Bottles • Jars • Boxes
- Ampules • Seals
- Hinge applying to paper boxes
- Wrap-around labeling
- Three-panel labeling
- Calendar tip-ons
- Photo-mounts
- Jugs • Cans • Decals
- Roll Labels • Books
- Insertion of literature
- Greeting Card underlays
- Assembly of small items
- Counter Displays
- Address labeling

(This list suggests typical Labelrite uses. It is not complete.)

*REG. U. S. PAT. OFF.

OPERATING ADVANTAGES

ADAPTABILITY. Fits any standard production line.

SPEED. Smaller work often permits two-at-a-time feeding.

PERFECT REGISTER. Positive delivery of label from hopper to container.

POSITIVE GLUE CONTROL. Twin rollers for uniform glue distribution.

OVER-ALL OR STENCIL GLUING. Over-all gluing standard; strip or pattern when desired.

LOW OPERATING COST. No inspection and wiping, faster feeding without fatigue.

QUICK CHANGE-OVER. Operator can easily make her own change-over.

SELF-CLEANING FEATURE. Quick, simple; takes less time from productive hours.

VERSATILE. Works with amazing variety of sizes, shapes, materials, objects.

PREVENTS EXCESSIVE ADHESIVE. Positive control of glue film, no wiping of containers.

NEW JERSEY MACHINE CORPORATION

AUTOMATIC LABELING PACKAGING • PAPER BOX MACHINERY • MAKERS OF THE PONY LABELRITE

FACTORY SALES AND SERVICE BRANCHES:
CHICAGO, CINCINNATI, LOS ANGELES

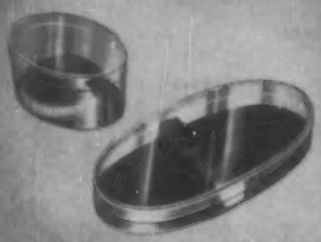
GENERAL OFFICES AND PLANT: 1500 WILLOW AVENUE, HOBOKEN, N. J.

STOP and THINK

. . . and you'll buy

Taber

SHEET PLASTIC FABRICATING EQUIPMENT



SAVE LABOR! SAVE MATERIAL!

If you're buying plastic fabricating equipment . . . STOP and THINK about one thing: Which equipment will produce FASTER and create FEWER REJECTS? Precision engineered TABER equipment cuts rejects to a minimum to save you plenty on material and TABER'S HIGHER SPEEDS and many exclusive AUTOMATIC features combine to cut your labor costs. So . . . STOP and THINK! Get the facts about TABER!

8" AUTO-SIZE CYLINDER FABRICATOR, MODEL 138

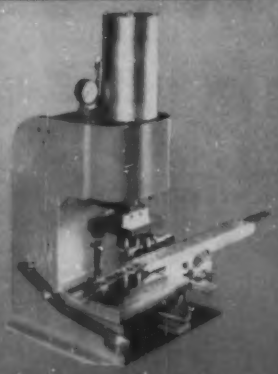
Cements, forms and seals lap-jointed cylinders from 1½" to 8½" in diameter and 1" up to 10" long. A first operation machine for making accurate, uniform cylinders that can be immediately fed into the model 147 Automatic Cylinder Beader.

8" THERMATIC DRAWPRESS, MODEL 146

Pneumatic powered and electrically heated press, for drawing and trimming in one fast operation, round or oval transparent box covers. Dies designed and built in our "Tool and Die Division" for parts up to 8½" maximum dimension.

8" THERMATIC CYLINDER BEADER, MODEL 147

For beading both ends of lap-jointed cylinders in one automatic operation. Designed to bead cylinders of accurate diameters made on the model 138 Cylinder Fabricator. Cylinder sizes range from 1½" to 8½" in diameter and 1½" to 15" long.



2½" PLASTIC FORMING AND DRAWING PRESS

Pneumatic powered press for drawing, forming, embossing or marking sheet plastic parts up to approximately 2½" in diameter.

Write for Illustrated Literature

TABER INSTRUMENT CORPORATION

Section 12

111 GOUNDRY ST. • N. TONAWANDA, N. Y.

Taber also produces:

- 30" Thermatic Folder, Model 178
- 18" Thermofolder, Model 103
- Duplex Straight Edger, Model 144-2
- Continuous Type Folder, Model 172
- 30" Thermocreaser
- Single Straight Edger

Taber ®

Readily available
to meet your immediate-
and future-needs

VENESTA

VENESTA FOIL

—Consistently Good!

A PRODUCT OF THE VENESTA PACKAGING DIVISION

VENESTA LIMITED, VINTRY HOUSE, QUEEN STREET PLACE, LONDON, E.C.4, ENGLAND
AGENTS IN U.S.A.: PARSONS AND WHITTEMORE, INC., 250 PARK AVENUE, NEW YORK, 17, N.Y.

PLATEN PRESS QUALITY CARTONS... at better than cylinder press speeds!

now...

ALL THREE IN THIS ONE NEW ROLL-FED CHAMPLAIN CUTTER-CREASER

HEAVY DUTY... 500,000-lb. cutting load capacity
ACCURATE... with Micro-Tension Control
VERSATILE... adapts easily to almost any production requirement

Exceptional new efficiency is built into Champlain's new Cutter-Creaser for folding cartons. Cutting, creasing and automatic stripping are accomplished in only one pass... with an amazing number of impressions per minute! Although this machine is ideally used inline with Champlain printing units, it can be used economically to die-cut a plain or pre-printed web. Now better than ever, with unique new refinements, this heavy-duty equipment offers the best possible means for manufacturing high-quality, low-cost cartons. You'll see why when you look over *all* its features.

HEAVY DUTY CONSTRUCTION

- Increased cutting load capacity (250 tons) with a high safety factor.
- When used inline, up to 2400 cartons printed (any number of colors, 2 sides), cut, creased, stripped and delivered *per minute*.
- Up to 12,000 impressions per hour.
- Three models, each giving 8,000-12,000 strokes per hour: 26" with 28" x 36" chase; 36" with 37" x 36" chase; 44" with 45" x 36" chase.

ACCURATE

- *Micro-Tension Control* for constant tension of web into cutter-creaser from press *or* roll stand... in conjunction with patented intermittent feed drive delivers exceptional print-to-cut-register accuracy. Immediate visual indication of variables... tension correction can be made manually or automatically (electric eye control).

VERSATILE

- Variable speed... slow belt delivery controls carton shingling, permits easy inspection.
- Automatic counting and delivery mechanism... can be pre-set for any number of blanks... groups and sorts cartons in any desired quantity.
- Adjustable chase tie bar... locates in various positions ... gives positive die lock-up... keeps chase square.
- New-type chase permits make-ready *in back of cutting or score rule*, as well as under cutting plate.
- Running register control... position of stripping can be brought into register with waste areas while press is running.
- Minimum spacing (¼") of waste extractor pins available for stripping the most intricate jobs.

WRITE TODAY for your copy of the comprehensive new book giving more facts about Champlain Cutter-Creasers. CHAMPLAIN COMPANY, INC., 88 Llewellyn Ave., Bloomfield, N. J. Chicago Office: 520 N. Michigan Ave., Chicago 11, Ill.

Champlain

The one way to make
your product
PRE-EMINENT

PACK IT IN

LusterBoard

THE BOXBOARD OF BRILLIANCE AND STRENGTH

LusterBoard possesses the enviable ability to catch the public's eye and to captivate its attention.

LusterBoard wraps your product in glamour, sets it head and shoulders above your competition. Here are the reasons:

- ★ LusterBoard gives you a brilliant, mirror-like surface with an unequalled capacity for faithful reproduction of halftones.
- ★ LusterBoard has the ability to add gloss to gloss inks for extra radiance.
- ★ LusterBoard has matchless affinity for metallic inks.
- ★ LusterBoard permits faster ink setting and drying, speeds printing and handling.
- ★ LusterBoard folds smoothly, embosses with exquisite beauty.
- ★ LusterBoard is not laminated. Lusterkoting is applied directly to the surface of high grade, extra-strong white base stock, producing strength that actually exceeds that of ordinary boxboards two to four points heavier.
- ★ LusterBoard provides a range of weights from 14 points through 20 points.

You will be delighted with the distinction in which LusterBoard clothes your product. Write now for samples, demonstration pieces, technical information.

Warren's STANDARD
Printing Papers

S. D. Warren Company
89 Broad Street
Boston 1, Massachusetts

WARREN'S LusterBoard

Briargate
Spice Scented
stick deodorant
For Men
TOPS IN TACT
No need to offend during business or social hours. Briargate Deodorant Stick gives active men day-long protection from body odor with an added dash of pleasant spice aroma. A final touch of good grooming.
Apply under arms. Safe for normal skin. Will not damage or stain fabrics. Keep tightly closed. Do not expose to heat.
NET WEIGHT 2½ OZS.
WALGREEN CO., DISTRIBUTOR
CHICAGO, ILLINOIS
Walgreen's packages its Briargate Men's Deodorant in 18 point LusterBoard
Lift and note the new white back

There's no business like show business!

for MORE business...

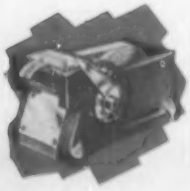
SPOTLIGHT

your products with...

KLEEN-STIK®

Pressure-Sensitive LABELS

"You ain't seen nothin'" . . . until you see what easy-on KLEEN-STIK Labels can do for your products, your business! It's the proved way of attracting and selling audiences at the point of sale. Large or small, almost any product becomes a *star sales attraction* when enhanced with a Kleen-Stik brand identification or sales-stimulating feature label. They stick tight almost indefinitely, yet remove when necessary.



Ever thought about Roll Labels? **Special dispensers and pressure-sensitive roll labels save time and money for any volume labeling job. Your roll label printer will supply you with exactly what you require. Ask him.**

KLEEN-STIK PRODUCTS, INC.

7300 WEST WILSON AVENUE • CHICAGO 31, ILLINOIS

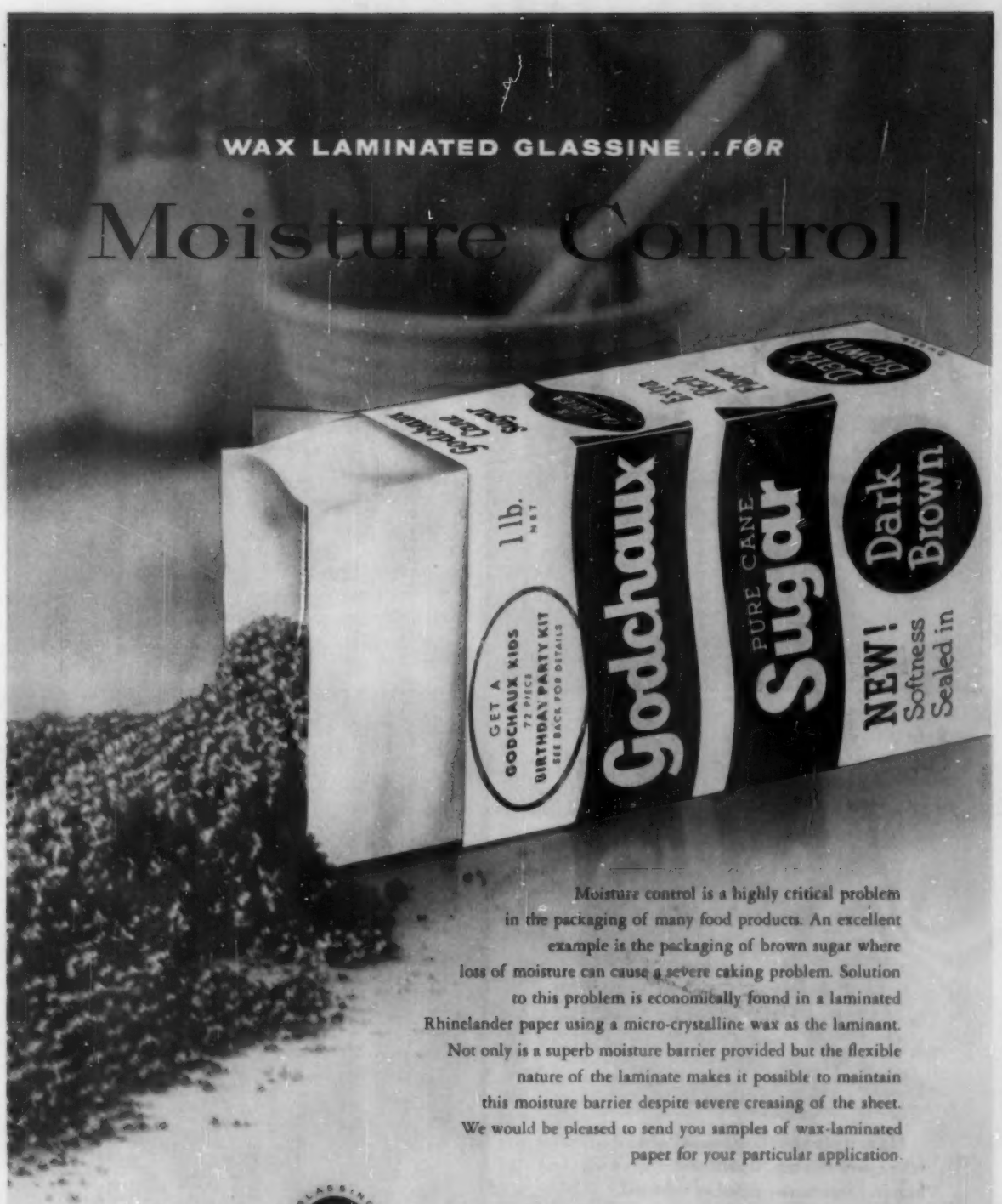
Pioneers in Pressure Sensitives for Advertising and Labeling

FREE ***TEST-IT-YOURSELF KIT***

Test pressure-sensitive labels on-the-spot in your own plant. Write today!

WAX LAMINATED GLASSINE...FOR

Moisture Control



Moisture control is a highly critical problem in the packaging of many food products. An excellent example is the packaging of brown sugar where loss of moisture can cause a severe caking problem. Solution to this problem is economically found in a laminated Rhinelander paper using a micro-crystalline wax as the laminant. Not only is a superb moisture barrier provided but the flexible nature of the laminate makes it possible to maintain this moisture barrier despite severe creasing of the sheet. We would be pleased to send you samples of wax-laminated paper for your particular application.

GLASSINE GREASEPROOF

RHINELANDER PAPER

Rhinelander Paper Company, Rhinelander, Wisconsin

Subsidiary of St. Regis Paper Company

GLASSINE—bleached unbleached colored transparent opaque window envelope wax-laminated heat sealing coated or tailor-made to fit your requirements GREASEPROOF—bleached unbleached laminated wet strength transparent tracing and transparent manifold parchment grades PAPERS FOR—corrugation lamination bag conversion window envelopes printing

R. C. CUSTOM-DESIGNED FIBRE CONTAINERS CAN SOLVE YOUR PACKAGING PROBLEMS

SPOOLS Can Be Tools . . . for Easier Sales

R. C.'s complete line of spools are designed for ribbons, tapes, and bandages —rotary or crimped fibre grips, with or without metal ferrules, 2" to 12" long. Smooth running R. C. Spools can mean smoother sales.

Easier Sealing Selling . . . with Plastic-Spouted CAULKING CARTRIDGE

Spout is heat-sealed with a foil-lined polyethylene patented seal — which extends shelf life indefinitely by preventing leakage and drying out of compound.

Spice is Nice . . . when packed in this Sliding-Dredge SPICE CAN

No more broken fingernails, when the housewife opens this can. Opens easily, even with wet hands. Spice can be sifted or spooned.

New BUG GUN Improves Sales Marksmanship

Here's an improved insecticide gun that's aimed at faster sales. Features include:

- New directional nozzle vent, permits dusting upward under bushes.
- Waxed inner lining assures smooth non-binding pumping.

See Your R.C. CAN-MAN

R·C· CAN COMPANY

R. C. CAN CO. The Stamp of Quality ST. LOUIS, MO.

MAIN OFFICE and Factory 9430 Page Blvd., St. Louis 14, Mo.

Branch Factories: Arlington, Tex.; Rittman, O.; Turner, Kans.

W. L. BENNETT, 126 S. Third St., Minneapolis 1, Minnesota • CAN SUPPLY COMPANY, 1006 W. Washington Blvd., Los Angeles 15, California C. E. DOBSON, 1003 Carondelet Bldg., New Orleans 12, Louisiana • L. C. MORRIS CO., P. O. Box 8042 Station F, 1156 Dalon Drive, N. E., Atlanta 6, Georgia • S. W. SCOTT & SON, 608 McCall Bldg., Memphis 3, Tennessee • R. C. CAN COMPANY, 225 W. 34th Street, New York City, N. Y. PALMER SUPPLIES CO., OF FLORIDA, Palmer Building, 209-211 E. Robinson, Orlando, Florida • JOE ROVIN, c/o Chicago Transparent Bag Co., 4806 W. Chicago Ave., Chicago 51, Illinois.

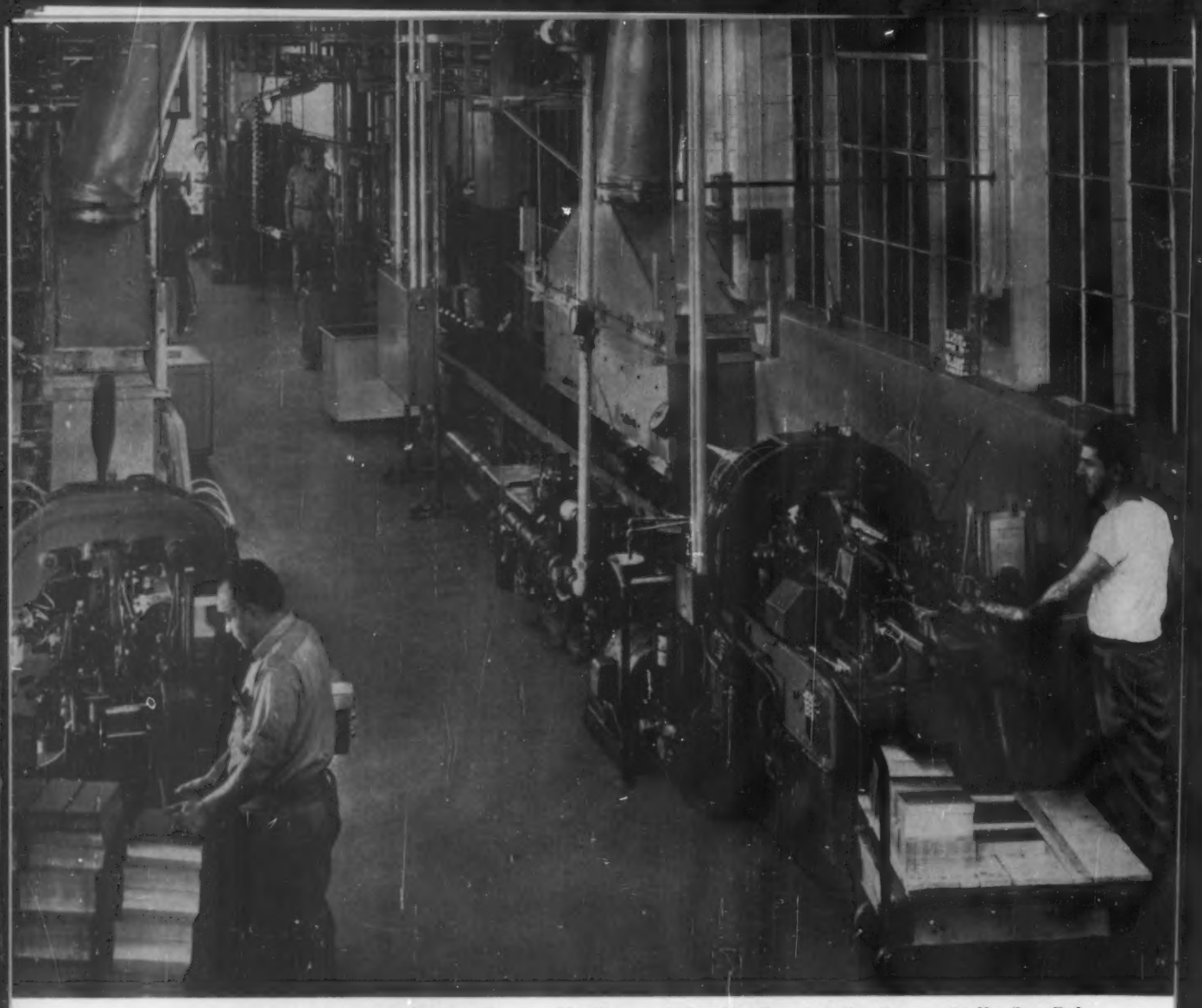
Here's another **foil** application

IDEAL MIXED WITH SCRAMBLED EGGS. DELICIOUS IN CHEESE RAREBIT
COMBINE WITH CREAM CHEESE FOR SNACKS AND HORS D'OEUVRES
MAKES WONDERFUL CREAMED BEEF
AND DELICIOUS SANDWICHES
DO NOT PARBOIL
READY TO EAT
PRICE
HYGRADE'S
SMOKED
SLICED BEEF
CHOPPED, PRESSED, COOKED
INGREDIENTS: BEEF, SALT, DEXTROSE, SODIUM NITRATE, SODIUM NITRITE.
KEEP REFRIGERATED
NET WT. 4 OZ.
FROZEN FOODS DIVISION—HYGRADE FOOD PRODUCTS CORP. EXEC. OFFICES: DETROIT, MICH.
U. S. INSPECTED AND PASSED BY DEPARTMENT OF AGRICULTURE
EST. 12%

Sales minded packagers in every industry are rapidly swinging over to foil for all types of labels and wraps. They're capitalizing on foil's threefold advantage—easy handling in the packaging line, attractive, sales-stimulating appearance, and consumer convenience.

The Hygrade bag-header label is a typical example of a new application. The foil stock multiplies the eye appeal of the handsome printing, and sets the bag off to advantage in the supermarket. The foil stands up much better than paper, too, when the housewife puts the bag in her refrigerator. And the packager simplifies his operation, because foil heat seals so well in the production line.

Rotogravure PACKAGING INC.
ADDISON, ILLINOIS



Above are two new Hamilton can bodymaking lines, including the new 501 Hamilton Bodymaker and Soldering Machine units, recently installed at Hershey Chocolate Corp., Hershey, Pa.

Newly designed can bodymaker cuts down on shutdown time

Hamilton's newly designed No. 501 Bodymaker and Soldering Machine represents the latest development in can making equipment. One of its many features is a central drive shaft, which means less linkage, lower maintenance costs, and shutdown time reduced to a minimum. All crank-actuated motions are from this central drive shaft. Automatic stops are provided throughout as a safety feature if a jam should occur.

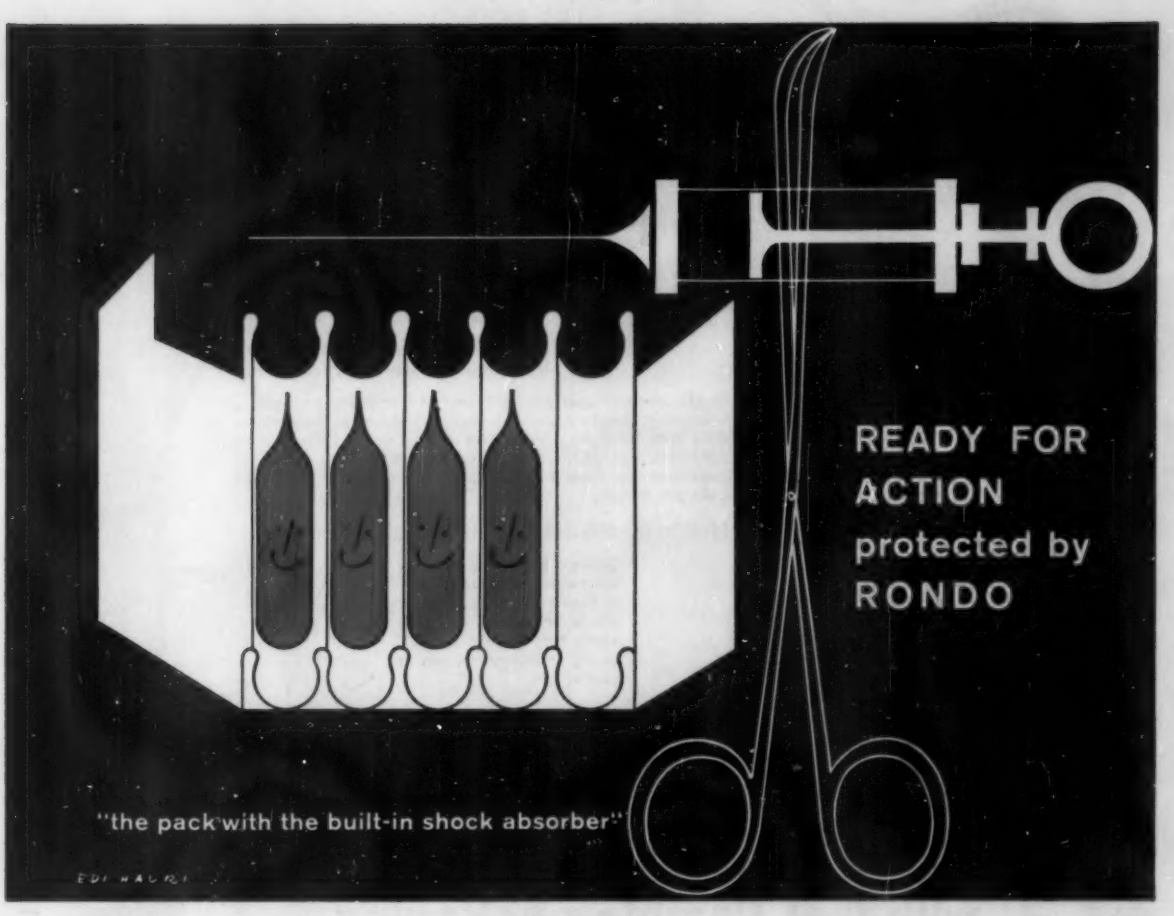
Stop in at Booth 15 at the Canners' Show, Feb. 16-19, Conrad Hilton, Chicago. Get firsthand information on the Hamilton 501; see for yourself its big possibilities in making your operations more profitable. And at the same time get a better understanding of the world's most complete line of can machinery.

Hamilton Division Hamilton, Ohio

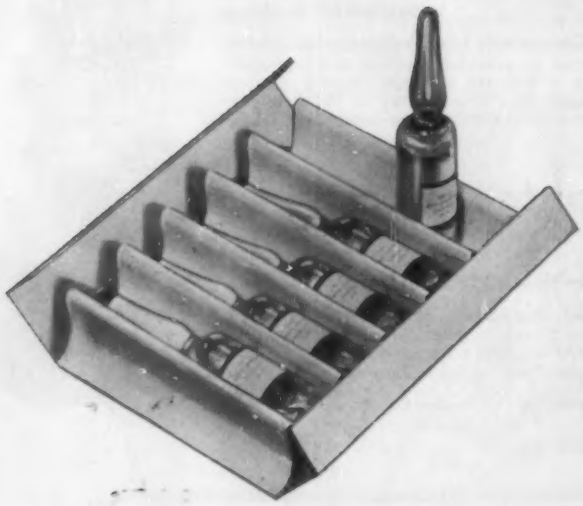
BALDWIN · LIMA · HAMILTON

Diesel engines • Mechanical presses • Can making machinery • Machine tools

BALDWIN BLH LIMA-HAMILTON



RONDO . . . safeguards small and delicate objects in its cushioning flutes



Typical among breakable articles is the medical ampul, that miniscule shell of glass encompassing liquid life and hope.

Pharmaceutical houses wanted a protective package to assure safe delivery at a nominal cost. RONDO solved this problem with a new packaging design. Each inserted item is held safely and firmly in fluted partitions with a spring-clip action, and require no additional padding.

The tray at the left illustrates how an ampul can be held upright in the RONDO-lation while a syringe is being prepared.

Besides packaging ampuls, cartridges and vials for the pharmaceutical trade, the RONDO method has been rapidly adopted by various industries such as, cosmetic, electronic, art supply and many others.

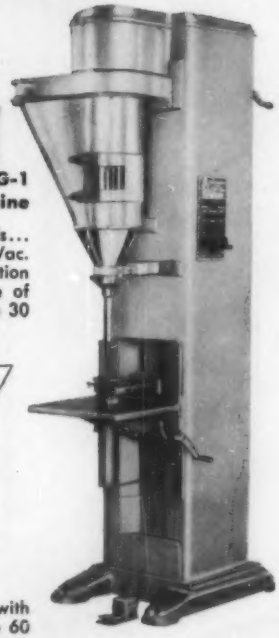
Send for illustrated brochure.

RONDO

AMERICAN RONDO CORPORATION
HAMDEN 14, CONN

4 ways to protect your profits in packaging

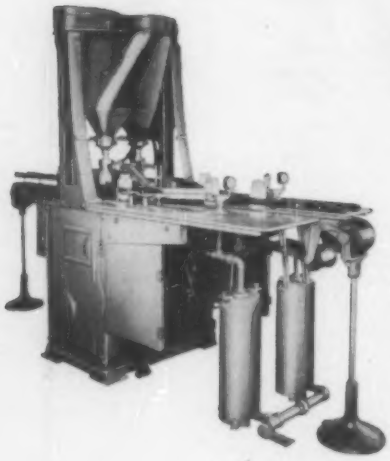
with accurate dust-free filling



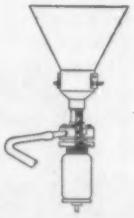
1

Stokes & Smith Model EG-1
Universal Auger Filling Machine

Semi-automatic operation with any of four filling methods... volumetric, pressure packing, gross weighing, or Auger-Vac. 40% fewer working parts are all located above filling station for clean operation. Will accommodate a wide range of package sizes from 2 grams to 10 lbs. at speeds up to 30 units per minute.



Ideal for Dry Milk Solids



2

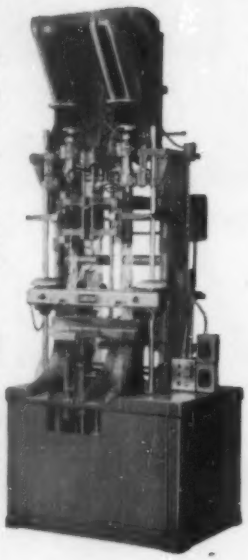
Stokes & Smith Auger-Vac assures clean, accurate fill with minimum dusting loss of whole or non-fat dry milk solids, hot chocolate powder, cocoa, instant coffee, etc. in cans or jars.

Stokes & Smith Model HG-84
Automatic Duplex Filling Machine

Two filling stations operate automatically by auger feed with precision cam-control for accurate filling. Speeds up to 60 units per minute. Also supplied with Auger-Vac equipment for fast, dustless filling of non-fat dry milk solids and other hard-to-pack powdered products.

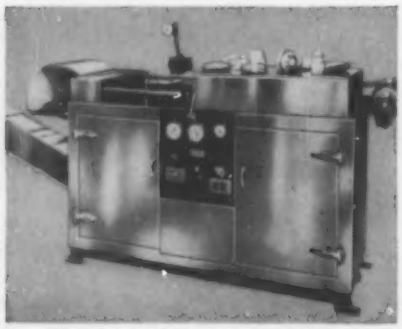
with fast, flexible packaging

3



Stokes & Smith Model "BS"
STOKESWRAP Machine

From roll stock, automatically forms, accurately fills a wide range of powdered or granular products and heat-seals either pillow-type or four-seal package. Handles a wide variety of packaging films at speeds up to 120 units per minute. Ask about STOKESWRAP for non-fat dry milk solids, dry cream, etc.



with contour wrapping

4

Stokes & Smith STRETCHRAP Wrapping Machine

Cheeses, meats and other odd-shaped products are wrapped at speeds of 12 or 15 units a minute in clear, sanitary, air-tight Pliofilm.* Reduces spoiling, handling damage, moisture loss. Tight wrinkle-free "skin" makes sales-appealing package.

*T.M. The Goodyear Tire and Rubber Co., Akron, Ohio

STOKES & SMITH CO.

4904-J SUMMERDALE AVENUE, PHILADELPHIA 24, PA.

Pacific Coast: SIMPLEX PACKAGING MACHINERY, INC., 534—23rd AVE., OAKLAND 6, CALIF.

fmc

SUBSIDIARY OF FOOD MACHINERY AND CHEMICAL CORPORATION

MXXT

A new type of "Cellophane" cellulose film for manufacturers whose products need:

PROLONGED SHELF-LIFE ★ EXTRA SPARKLE ★ NEATER, WRINKLE-FREE WRAPS

MXXT is an outstanding new type of transparent, moistureproof, cellulose film, developed specially to satisfy the stringent packaging requirements of certain products. It is the outcome of eight years' research and development.

CHIEF PROPERTIES

- ★ MXXT is exceptionally resistant to the passage of water vapour. It is a better moisture barrier than any film of comparable thickness at present available in the world.
- ★ The moistureproofness of MXXT is not adversely affected by creasing, printing or heat-sealing.
- ★ Under normal changes of humidity MXXT will not shrink or wrinkle.
- ★ MXXT has an added sparkle. It gives packs a special eye-appeal.
- ★ MXXT is highly resistant to fats, oils, greases and solvents and to the passage of gases and odours. As with all colourless, moistureproof kinds of "Cellophane", the coating is anchored.

USES: MXXT is particularly suitable for packaging foodstuffs which need an exceptional moisture barrier to maintain their freshness during shelf-life. It has distinct advantages as a direct wrap on certain products — such as biscuits — which may damage other films by abrasion, and also where a wrap is required that does not change dimensionally.

SUPPLIES: At present two kinds of MXXT film are available — MXXT 400 and MXXT 400/35. Supplies are limited, but we are increasing capacity to meet the growing demand.

PRICE: MXXT costs more than established types of "Cellophane". The price of rolls of both MXXT 400 and MXXT 400/35 in lots of 1 ton or over is 5/6d. per lb.

PATENTS: The manufacture of MXXT film is covered by the following British Patents:—

626536	651769	654342	655006	655732	663645	665479
674728	677926	679727	682689	692154	693496	700619
703010	714275	727414	731630	744669	744677	749276

756851 and other patent applications are pending.

In addition, patent applications by British Cellophane Limited have been approved or are pending in the following countries:

Australia	Belgium	Canada	France	W. Germany
India	Mexico	Sweden	United States of America	

"CELLOPHANE" — the first packaging film — and the greatest!

BRITISH CELLOPHANE LIMITED

Commercial Offices: 12/13 CONDUIT STREET, LONDON, W.1

Reg. Offices & Factory: BATH ROAD, BRIDGWATER, SOMERSET

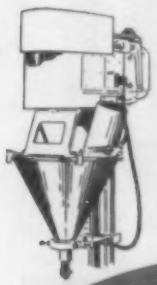
"Cellophane" is the registered trade mark of British Cellophane Limited and denotes the brand of cellulose film manufactured by them.

Versatile Packaging Line!

BARTELT

High Speed Automatic Packaging

Versatility is one important feature of the High Speed Bartelt Packaging Line, now in use packaging many of the best known national brands. The basic line (1) makes a bag from a roll of paper, film, or foil; (2) fills the bag accurately; (3) heat seals safely; (4) it can also set up cartons, insert the desired number of pouches and many premium items, glue and tuck ends. Bartelt also makes the Checkweigher and Filler shown below. All are fast, automatic, and designed for long years of operation with low maintenance. Write for complete information.



FILLER

The Bartelt Filler is a device for accurately measuring and dispensing a predetermined volume of powder, granulated solids, viscous materials, semi-liquids, or liquids.

CHECKWEIGHER

Bartelt Checkweighers are capable of handling packages up to 4½" x 7¾" base size, and cans or glass jars up to 5½" in diameter. Normal weight range is up to 2 lbs. Detects accuracy at a predetermined range of plus or minus one gram.

BARTELT ENGINEERING CO.

1900 HARRISON AVENUE
ROCKFORD, ILLINOIS
New York Office, 370 Lexington Ave.

"Machinery for Creative Packaging"

OPERATION: GLAMOUR . . .

transparent Acetate containers and Orchids of Hawaii make a sparkling promotion

What could be more appealing than a give-away promotional item of exotic Hawaiian orchids—encased in a glittering Acetate container?

That's the reasoning of Kei Yamato and Ted Uchida, President and Vice President, respectively, of Orchids of Hawaii, Inc. This enterprising team agrees the success of [illegible] orchid operation is due in large part to the additional [illegible] glamour lent by sparkling Acetate containers and [illegible] effective use in stimulating package interest.

Celanese Acetate Sheeting is the finest material available [illegible] transparent containers. It can be deep drawn [illegible] mented, or electronically sealed to meet the needs of any product or process. It is excellent for fast fabrication on automatic machines.

Give your product a competitive edge . . . make your package stand out on the shelf. Enlist the aid of Celanese Acetate Sheeting and the packaging versatility it affords the package designer. Write for the Celanese Acetate Sheeting Booklet.

Celanese Corporation of America, Plastics Division, Dept. 108-A, 290 Ferry Street, Newark 5, N. J. Canadian affiliate: Canadian Chemical Co., Limited, Montreal, Toronto and Vancouver. Export Sales: Amcel Co., Inc. and Pan Amcel Co., Inc., 180 Madison Ave., New York 16, N. Y.

Celanese®

Celanese packaging films

Packaging's A B C's

Attracting Buyer's Capital—whether in dimes or dollars—is packaging's job today. For instance, your package in Gardner White Kromekote*, solid news back, will glisten with new beauty and appeal, and add sparkle to your sales performance, too.

White Kromekote is one of a wealth of paper boards and special finishes offered by Gardner. Whichever you choose—Gardner quality is always there, controlled through every step from pulp to finished package.

Want carton samples? Or other aid leading to more productive, more profitable packaging? Call or write today.

**Kromekote Brand Cast Coating by The Champion Paper and Fibre Company*

Many of America's great products reach the consumer in "Cartons by Gardner"

PLANTS: Middletown, Ohio; Lockland *(Cincinnati)*, Ohio; Springfield, Massachusetts *(Gardner-Brooks, Inc.)*
SALES OFFICES in Chicago, Cleveland, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Greensboro, N.C.

THE GARDNER BOARD AND CARTON CO.

Middletown, Ohio

Manufacturers of Folding Cartons and Boxboards

FROM THE GARDNER GALLERY OF FAMOUS AMERICAN PACKAGES

NASHUA PRINTED PACKAGING

This distinctive wrap may be available for exclusive use in your area. Write to The Lonsdale Bakery Co., Saylesville, R. I. for information.

SELLS MORE BREAD

Sales soared when the Lonsdale Bakery adopted this striking wrap, designed and printed by Nashua! Chances are, *your* product can make a better showing in today's self-service selling — when it's *packaged for buy-appeal* in Nashua Printed Packages. Let a Nashua representative show you "The Power of the Package". Write Nashua Corporation, Dept. MP-1, 44 Franklin Street, Nashua, N. H. Sales offices in New York, Philadelphia, Chicago, San Francisco, and Peterborough, Ontario.

NASHUA Corporation

40 YEARS OF CREATIVE PACKAGING

NASHUA

Retrospect and prospect

Here, in the dual perspective
of a year's end,
are the developments that loom largest
out of the year past
and those of greatest promise
for the year ahead

PHOTO COURTESY FLAX CORP.

Progress from research is symbolized by this comparison of two polyethylene test bottles. One, unlined, is distorted by loss of internal vapor pressure within 24 hours. The other, lined with a new impermeable coating, holds its shape after a period of two years. Lined squeeze bottles will be in evidence this year.

Looking back, packaging development during 1956 can be traced in two main lines of progress. One is the removal of more and more work from the packaged product before it leaves the factory. The other is the creation of packages offering greater display impact and improved self-selling efficiency.

Looking ahead, it is apparent that these two basic trends will broaden and deepen during 1957, for the consumer mood and the merchandising situation demand them. The consumer wants still more convenience; the merchant wants still more sales efficiency. And there will be important new contributions to these aims this year.

The things certainly ahead as this new year begins include:

- Increased supplies of better-handling polyester film, plus new types of laminations and coatings.
- The first volume uses of the new "harder" polyethylenes.
- More multi-unit packaging.
- Better, whiter box and container boards.
- Further improvements in color printing and color control.
- Broader fields of use for aerosols.
- Greater packaging use of aluminum in many forms.
- Lighter-weight glass.
- Further functional improvements in cans.
- Big volume use of throw-away molded and formed plastic packages.

Statistically, the general expectation is that the volume of packaging business this year will approach, if not exceed, the record levels of 1956. The end of last year saw the first concerted upward

hitch in container prices since Korea, with the result that while physical volume of production of packaging supplies and equipment rose between 3 and 4% over the previous year, dollar volume for 1956 was up about 5%. The price increase was significant not so much in degree as in its widespread application, right across the board of packaging supply. While a few minor upward adjustments may still be made, there is reason to hope that packaging has now absorbed this new round of inflation and that—barring reverberating effects of the Suez Canal stoppage—things may stay on a fairly even keel through 1957.

Convenience is the key word in food packaging today. Prepared pancake batter now comes in paper milk cartons ready to pour. In this press-party stunt, Walter S. Mack (left), president of C & C Super Corp., watches daughter Alice Ruth, 10, pour a pancake while I. R. Hill, vice president, smiles at daughter Susan. C & C's "Batter Up" is distributed by milkmen on their regular routes.

What follows is a summation of what seems, in retrospect, to have been the significant packaging developments of 1956.

Top packages

Near the top of any list of 1956's distinctively new contributions to packaging would be the cook-in-bag container employing polyester film. A polyester-polyethylene film package launched Luchow's famed New York restaurant on a marketing venture (*March, p. 174*)[1] that reportedly has experienced phenomenal success. And in only a few months this type of packaging has mushroomed into a major trend (*Nov., p. 99*). By the end of the year, a boilable polyethylene film had been announced.

The new types of convenience packaging unquestionably represent one of the biggest opportunities ever opened to food producers, processors and merchandisers. Taking the work out of the product and the package constitutes a trend that no food processor can ignore.[2]

Foil envelopes, foil trays and foil-lined cartons are also winning an important place for themselves in the growing heat-and-eat boom. The use of foil packages has involved more than a few advances in recent months. The ribbed foil cups adopted by Kraft Foods Co. for its line of "Party Snack" spreads provided one of the top individual packaging success stories of the year (*Aug., p. 122*).

Prominent as it is now, it is hard to realize that the squeeze can, which combines a polyethylene body with metal can ends, was first seen in 1956 (*March, p. 152*). It is now used for at least 24 products, including many top-brand liquid detergents and insecticide powders.

The aerosol, which regularly posts important advances each year, opened no less than three new fields last year. Helene Curtis introduced a purse-sized vial that can be reloaded from a companion full-size aerosol can (*Aug., p. 118*). Riker Laboratories, Inc., introduced the first internal medicinal aerosol, an inhalant used in relief of asthma (*Sept., p. 84*). Pharmaceutical aerosols already number about 50 and the number is expected to double this year. Finally, the Bon Ami Co. opened a new path to aerosol packaging of aqueous products with its use of a new hydrocarbon propellent and a special corrosion inhibitor that permits use of an unlined metal can for a three-phase, water-based, aerosol cleanser.

Although the trend has been developing for some time, 1956 saw the first widespread recognition of the fact that molded plastics are aiming for really big-volume packaging with low-cost, light-weight, throwaway containers such as the injection molded trays now used by the millions for tomatoes (*May, p. 128*) and the expendable cups for ice cream. Another expendable plastic item is the new polystyrene sheet lid for paper cups and foil pans (*Sept., p. 120*).

The miniature, single-use, saran squeeze tube

[1] References in parentheses are to 1956 issues of MODERN PACKAGING.
[2] See "The Working Package and Convenience Foods," MODERN PACKAGING *Encyclopedia Issue for 1957*, p. 16.

Heat-transfer label combines printing and labeling, using heat, pressure and a special machine attachment to transfer inked impressions from paper backing to cellophane. Result is similar to gravure-printed cellophane, but printing is done in packager's plant.

Heat-transfer label

Functional transparency is a new and important packaging concept to the industrial packager. GE's acetate box for a TV-camera tube gets careful handling because it shows what's inside.

Functional transparency

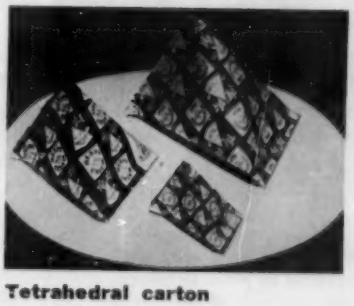
Squeeze can is only a year old, but already has dozens of users. It sprays liquids or powders, combines strength of steel and flexibility of polyethylene.

Squeeze can

Miniature squeeze tube of impermeable saran tubing opens new single-dose opportunities for liquid and ointment products.

Miniature squeeze tube

Tetrahedral carton of polyethylene-coated paper is formed, filled and sealed in a single operation on a special machine in the dairy.

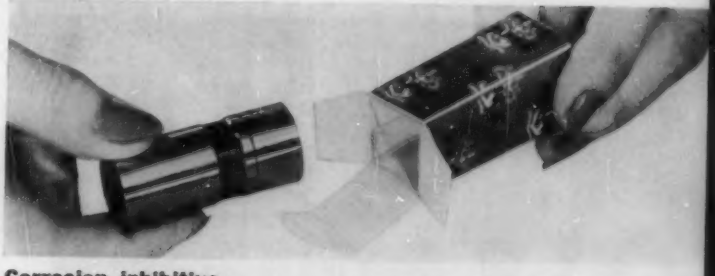


Tetrahedral carton

Foil cup employed for Kraft's Party Snack cheese spreads became an instant sales hit. Ribbed sides and six different lacquered colors bring new and exciting display features.

Foil cup

Corrosion-inhibitive carton used by General Motors for precision parts introduced new principle in the use of VCI chemicals. Special linings and seals are eliminated.



Corrosion inhibitive

Fluorescent carton letterpress printed in quantities of millions represents new peak of progress in the use of fluorescent inks for packaging.

Fluorescent carton

Pull-tab carton introduced by General Mills demonstrates how a fresh but logical approach to a widespread problem produced a simple solution and a very desirable new convenience.

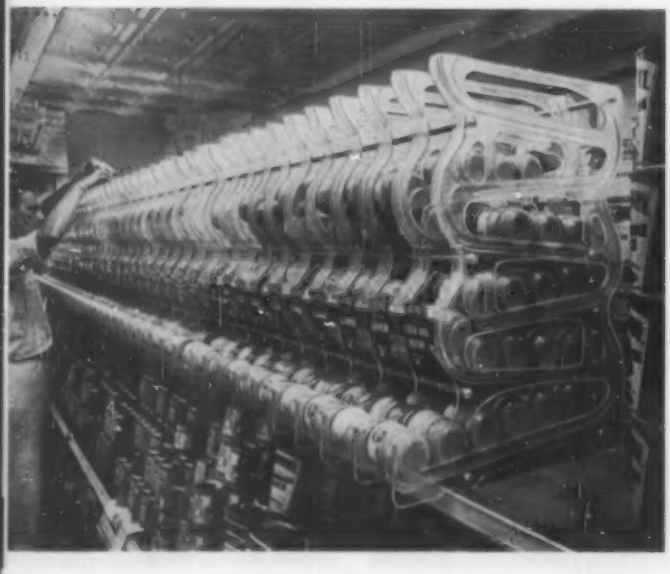
Pull-tab carton

which appeared last year (*Jan., p. 98*) is a brand-new package type. Its distinguishing feature is the fact that it has no separate closure, but opens simply by squeezing. It is especially promising as a container for sample and unit-of-use items in the fields of personal products and pharmaceuticals. Notable, too, in 1956, was the advent of the long-awaited interior lining of polyethylene tubes and bottles to reduce permeability (*Feb., p. 84*).

Metal collapsible tubes showed up with a host of innovations, including Crest Tooth Paste's introduction of a white urea neck assembled to a lead tube to avoid discoloration (*Oct., p. 126*); jellied paint dispensed like tooth paste from a tube (*Dec., p. 136*); the wide acceptance of peelable lithography, which solves the labeling problems of pharmaceutical houses and those who retail ethical products under their own label (*Nov., p. 144*) and metal tube-in-tube combinations that keep reactive chemicals separate until the moment of use (*Jan., p. 130*). Reported in this issue (p. 206) is one of the most intriguing ideas in years: a fitment that puts stripes on tooth paste.

Other developments that packagers can look back to as points of departure include the new pull-tabs that General Mills has incorporated in all its consumer food cartons for easy opening (*Jan., p. 93*); the first commercial use in this country of the Swedish tetrahedral paper milk containers, which are formed, filled and sealed in a single operation (*Nov., p. 234*) and the several new types of plastic fitments and pour spouts which offer new convenience and sales appeal for products such as liquor (*Sept., p. 88*), syrup (*Nov., p. 140*) and a number of foods and household products (*Feb., p. 108*). One convenience feature worth watching is an integral, pull-out pour spout formed right in the board of a folding carton, requiring only a special die in the blanking operation (*Dec., p. 124*).

New conception of efficiency in retailing is this plastic "roll rack" supplied by Heinz to baby-food dealers. Fed from the top, removed from the bottom, jars are always first-in, first-out.



New materials

The year produced more than its share of developments in film materials. In addition to the lamination of polyester and polyethylene films that first made a boilable transparent film package, the year saw the development of three other films that should stand boiling and sterilizing temperatures: a polyethylene-coated polyester and two new high-heat-resistant polyethylenes—a high-density film formulation from high-pressure resin and films made from the new low-pressure resin.[3]

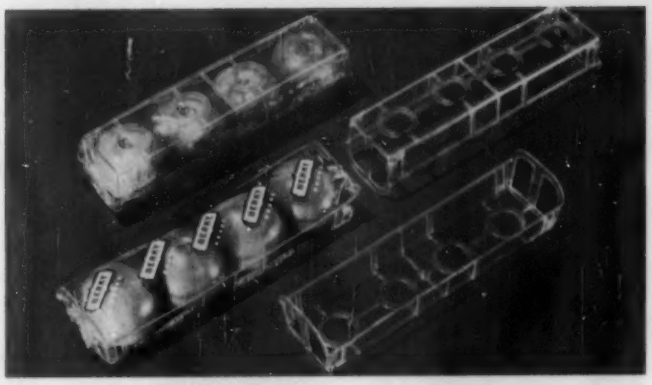
The advent of hot-melt adhesives in rope or coil form seems to point to new efficiency and convenience for a wide range of bonding operations. Chief advantage of this adhesive, initially used in gluing a tray for baked goods (*Aug., p. 168*), is its simplification of the heating method and elimination of the glue pot and problems of clean-up. Control is less critical and quality of the hot melt is maintained. Essentially, the reel-fed hot melt tends to enhance the adhesive's best characteristics and lessen its limitations.

Paper and paperboards have been much in the news. The Maurice Lenell Cooky Co. introduced a tray for cookies employing a new anti-oxidant board treatment designed to control the development of rancidity (*Jan., p. 118*). Incorporation of a special low-molecular polyethylene additive in waxed coatings for overwraps brought color-printing realism to a high degree of perfection on overwraps for Thompson Restaurants' new frozen meals (*Feb., p. 104*). The corrosion-inhibitive cartons adopted by General Motors (*May, p. 146*) are worthy of note because they simplify the matter of using volatile corrosion inhibitors for precision parts and similar items. An anti-tarnish boxboard (*Sept., p. 87*) coated inside with polyethylene and outside with silver clay is an excellent example of today's trend to the use of a multi-function single package that eliminates wrappers and liners and simplifies and improves the packaging operation.

A spray non-skid coating, adopted by Socony for corrugated shipping cases (*Dec., p. 127*), is an important advance in the search for a simple means

[3] See "Polyethylene's New Promise," Modern Packaging *Encyclopedia Issue for 1957, p. 22.*

Throw-away plastic trays indicate new status of molded plastic packages, which, like cans, cartons, other volume containers, are now made at low cost for single-trip usefulness and easy discard.



Throw-away plastic

Component pack is the baking-mix manufacturer's answer to the growing consumer demand for more convenience and greater variety.

Component pack

Refillable aerosol is reloaded from a "mother" can of aerosol hair lacquer. Purse-sized vial can be carried by the user wherever she goes.

Refillable aerosol

Boilable film, using polyester, makes it possible to provide new cooking convenience plus menu variety that includes dishes such as Luchow's famous beef goulash.

Boilable film

Perforating skin of this package for an electrical connector permits insertion of wires into aluminum sleeve that has been protected from corrosion by vinyl skin right up to instant of use.

Perforating skin

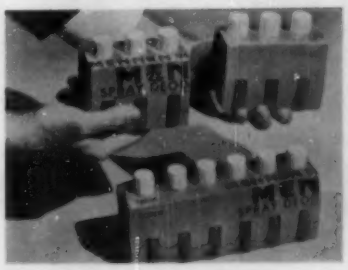
Apothecary jar introduced for vitamins won instant popularity, is starting trend for candy, spices and other products, too.

Apothecary jar

Pour-spout carton uses nothing more than the boxboard itself to provide economical dispensing and reclosure device.

Pour-spout carton

Tear-off units of a multiple band afford distributors and retailers new convenience in handling.



Tear-off units

Gift pre-wrap has quickly found widespread favor. Technique is said to be still in its infancy, with new and better uses probable as the method grows.

Gift pre-wrap

PHOTO COURTESY WAXED PAPER MERCHANDISING COUNCIL

Restaurant names moving into the packaged, frozen, cooked-food business represent one of big trends of 1956. Stouffer's specialties come in foil pans in cartons with waxed-paper overwraps.

of achieving effective, non-slip unitized pallet loads of boxes and bags without gluing or strapping.

The year brought two developments of significance to the future of glass containers: (1) announcement of a new design and molding technique that can make wide-mouth food jars 20% lighter with no loss of strength and (2) surface coatings for multi-trip glass containers which greatly reduce their susceptibility to life-shortening nicks and scratches.

Developments in metal cans need not be cited here because they are fully covered in this issue in a survey article launching a new series of cover stories (see "Cans," p. 102, this issue).

Methods

Packagers have good reason to mark the 1956 advent of a brand new heat-transfer method of printing that permits low-cost, multicolor decoration of cellophane and other transparent bags and wraps as needed (*Aug., p. 138*). The advantages of the system include full range of colors; flexibility of copy; high-gloss, quality appearance, and considerable simplification of inventory demands. This system has important implications in an immense field that now consumes an estimated 12 billion paper labels annually.

Another milestone in graphic arts is the first full-scale successful printing of fluorescent inks on folding cartons by letterpress. Warner Bros. was the first to use it, employing vivid daylight-glowing colors on new cartons for a line of girdles and bras which won counter-display position for this traditionally clerk-sold merchandise (*April, p. 86*). Even more significant, toward the end of the year, was the use of fluorescent letterpress printing on Chesterfield's holiday gift cartons—an order which ran into the millions of boxes (*Dec., p. 130*).

The gift pre-wrap as a packaging-merchandising technique won considerable additional acceptance during 1956—not only for liquors, but for many other items that are or can be sold as gifts (*Feb., p. 79*). The pre-wrap trend is so new and has developed so fast that the packager can be sure it will be further extended this year.

There was striking evidence during the year of the tendency for bright ideas in one field to spill over into other, totally unrelated product fields. The need for a package form that would make its product stand out from its numerous competitors caused J. Rokeach & Sons to borrow from the liquor field the idea of a glass decanter for borscht; now decanters are sweeping the whole borscht industry. Similarly, after Upjohn adopted a simulated apothecary jar as a package for vitamins, several other vitamin manufacturers took up the idea—and now various versions of the apothecary jar are standard production items for several glass-container companies, used for their old-fashioned appeal on such products as candy and spices.

Probably very little need be said about the onrush of thermoformed sheet plastics, for considerable notice has already been given this subject (*May, p. 95*). The growing popularity of blister, skin and contour packs is one of the most prominent movements in packaging. This is deservedly so, because thermoforming gives the packager a new world of dimensional freedom, plus a transparent packaging medium that is almost in the cost range of paperboard.[4] An important trend to note in connection with thermoforming is the fact that national brands and leading packagers are adopting formed sheet containers in a variety of styles and for a wide range of uses. Look for thermoforming to move even faster when advances in know-how, materials and equipment are pushed by volume users.

Industrial packaging took some long strides forward during 1956. Among the trends was the growing use of functional transparency, employing a range of plastic containers, as a means of aiding inventorying and speeding stock selection and the handling of parts in assembly, construction or repair jobs (*April, p. 114*). There were several outstanding examples of trademark redesign to achieve better package identification of the industrial product. The October issue of MODERN PACKAGING illustrated no less than three: Scovill's four-color brand mark for the wrapping of brass-mill products (*p.*

[4] See "Blister, Skin and Contour Packs," MODERN PACKAGING *Encyclopedia Issue for 1957*, p. 27.

108); Jones & Laughlin's new trademark for steel products (*p. 118*), and National Carbon Co.'s striking new identity for carbon electrodes (*p. 144*).

The industrial packager will want to give more attention to building function into his packages. Food packagers are deservedly quite excited about the built-in "maid service" they are supplying in their packaged merchandise. There is just as much opportunity—and in some instances even more—for the industrial packager to devise containers that take a lot of work out of the product before it leaves the factory. A noteworthy example is the packaging of electronic parts in magazine-type packages for automatic feed to machines producing circuit panels for Admiral television sets (*May, p. 134*). Another excellent example of the "working" industrial container is the skin packaging for wire splicers adopted by Thomas & Betts Co. (*Dec., p. 108*). The electrician can stock the splicers in quantity and tear them from a strip as needed; he can insert wires into the splicer right through the package and is thus assured of a corrosion-free contact.

Other highlights involving methods include the breaking down of baking mixes into separate component packages to meet the consumer demand for more convenience and more variety (*July, p. 90*); the standardization of folding carton tucks and flaps to obtain operating economies resulting from uniform design (*April, p. 92*), and the resurgence of the set-up paper box resulting from new machinery and improved methods of fabrication on simplified automatic equipment (*March, p. 156*).

Merchandising

Packages are placing an increasing number of non-foods in the supermarkets. At the same time, variety and department stores are making new demands for efficient modern packages that will speed self selection and help retain their traditional share of the consumer dollar (*June, p. 85*).

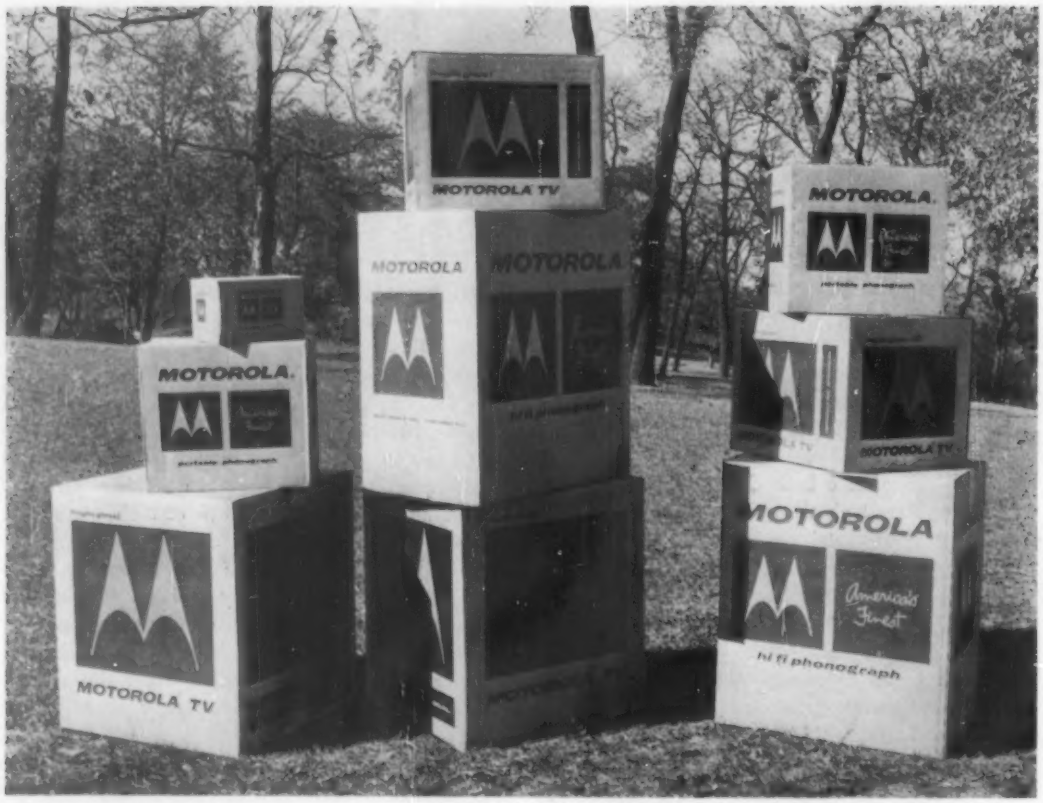
Certain fundamentals of packaged-goods merchandising were underscored during the year in an important study of packaging attitudes and practices in the food field. Highlights of this survey, made by the Folding Paper Box Assn. (*July, p. 73*), included these facts: (1) Display value is the one most important factor; cost ranks only seventh in the list of elements influencing the packaging decision; (2) Food manufacturers believe that a change in consumer packaging can of itself bring a measurable increase in sales; (3) Nearly half the food manufacturers now have packaging committees to approach packaging problems professionally and scientifically; (4) Food manufacturers are now spending, on an average, 10% of their gross sales income on packaging.

The year just ended has seen increasing attention to the product-identity problem and in food products it appears that consumer confusion may be forcing a trend away from ready-to-eat illustrations back to literal product illustration and labeling (*Sept., p 79*).

The year was an outstanding period of growth for the multipack method of merchandising. Packagers in a number of product fields, particularly foods, soft goods and personal products (*Dec., p. 142*), are searching out new ways to use carry cartons, bands and other devices as a medium for increasing handling efficiency and/or sales. Numerous authorities believe multipack merchandising offers a new way of penetrating and developing markets not previously served [*Continued on page 210*]

Spiral screw feed (circled) is currently the big new principle in automatic packaging machinery. It handles containers more gently at high speeds and is capable of variable speed adjustment. This continuous labeler in operation at Lea & Perrins handles output of three 60-a-minute bottling lines.

PHOTO COURTESY NEW JERSEY MACHINE CORP.



Self-contained billboard wherever it goes, the distinctive, abstracted bold "M" appears on all four sides of the corrugated containers. Cartons provide an attractive base for numerous display purposes.

Big 'M' for Motorola

A stylized initial
that dominates carton design
gives radio and TV sets new impact
in the retail outlets and forms the basis
for a company-wide identity program

Walk into any major appliance store, television-radio department and you'll get the full impact of the maze of brands and fierce competition in the electronics industry. Chances are you'll also be struck by the bold, new packaging design on Motorola cartons.

This design, highlighted by a modern initial "M," which the company calls its "M-signia," is part of a complete company-identification program that began about a year and a half ago with a coordinated package design. Motorola has just converted all packages for consumer products and industrial communications equipment to the new design and further package applications employing the recently established motif are now under way.

About two years ago Motorola's styling section, headed by Herb Zeller, asked management to consider a company-wide brand identification program. At that time packages were being ordered by each department, which designed its own cartons or bought artwork from outside sources. There was no unified, repeated design to identify Motorola pack-

ages among the company's many different containers. Only by chance were there design similarities.

The company had previously made one attempt at an identification program, using a script logotype and script "M" (nicknamed "the worm" by employees). One difficulty with the "worm-M" was that it did not lend itself to complete graphic treatment in letterpress printing, plastics molding, die stamping, etc.

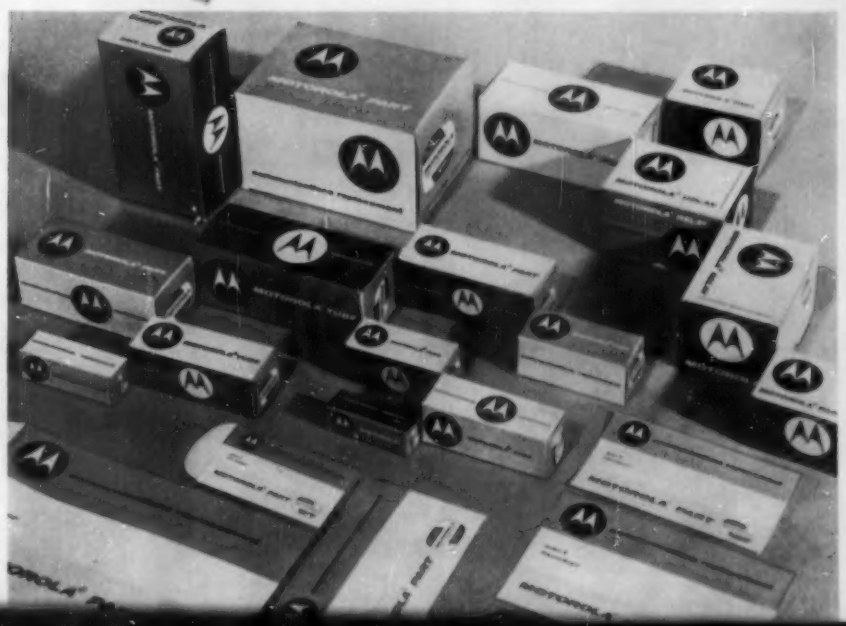
The company benefited from this first experience. Once a complete Motorola identification program had been approved, the styling section sought the outside counsel of graphic designers and companies which had undertaken such programs. A designer was chosen to originate a basic trademark and logotype and to apply them to packages, letterheads and a new showroom.

The final presentation of the trademark, the M-signia, was made after a considerable amount of work on the project. The design brought pronounced reaction from company personnel (at first pro and con; now decidedly in favor of it). Two aspiring, triangle peaks arching into an abstracted "M" are the basis of the new mark. This was chosen by the company to typify the progressive outlook of Motorola in electronics, an industry which has little rooted tradition and is widening its horizons every day.

The M-signia was designed to be not only a distinctive mark, but also a flexible one in reproduction. It is adaptable to all forms of manufacture—printing, casting, stenciling, molding, stamping and embossing; it reproduces well in positive or negative form and is attractive in nearly all colors.

In working out the package symbol, the design consultant and company created a flexible panel arrangement that could be rearranged to meet Motorola's growing needs and changing inventories. A two-color treatment was developed for shipping containers, using orange and black for television sets

Old and new cartons show how improved design dramatizes brand recognition. Old Motorola logotype (left) is barely distinguishable against checkerboard pattern and heavy "TV" lettering. New carton (right) gives instant identity and is unified with other Motorola containers. Five simple picture-and-word opening instructions replace former solid paragraph of directions. Color arrows point to space for rubber-stamped model numbers.



Replacement-parts packages carry basic motif of the M-insignia and italic logotype against alternating panels of red, yellow, black and white. On folding boxes, the color differs from side to side; on envelopes and labels, color bands identify the Motorola brand. In all cases the prominent areas left for marking the part number is integrated with over-all design.

Set-up boxes for remote-control tuners feature new M-signia and sans-serif italic logotype. Folding box for disappearing antenna (lower left) has M-signia in reverse.

Foil box for transistor radio and set-up box with its corrugated container for another such radio demonstrate the graphic quality of new identification program. Symbol reproduces well on foil, enameled stock and corrugated board.

Flexible packaging application of the M-signia is used for portable radio. Polyethylene bag, three-color printed, has the word "Roto-tenna" placed so that it is directly over that part of radio.

and blue and black for radios and phonographs. A three-color pattern of red, yellow and black was selected for folding cartons, envelopes and sleeves to hold replacement parts.

In addition to the M-signia and logotype, the mobile panels and the color code, shipping cartons were provided with easily identifiable areas for model number imprinting and for shipping and inventory tickets. Carton-opening information was changed from a hard-to-read paragraph to five simple steps broken into pictures and words.

The first packages were laid out by the design group in close cooperation with Motorola's styling section. After the initial packages were produced, the company's graphic arts experts applied the basic principles to all Motorola packaging and are continuing them for new packages being planned.

In addition, the company identification program is being carried into all activities beyond packages and products themselves. A new functional and flexible-arrangement showroom, designed by the consultants for Chicago's Merchandise Mart, translates the M-signia and logotype into spatial relationships. Stationery, office forms, shipping labels, invoices and even men's ties have been designed with the M-signia, new logotype and company color code. Motorola's styling section is establishing standards for signs, trucks, water towers and architectural use.

The new packaging design program has been termed a marked success by the company. Original objectives have been achieved for a unified company identification. The larger shipping cartons are, in effect, four-sided billboards. They are clearly recognizable during shipping, delivery to stores and homes, and in stores. Many dealers use the corrugated shipper as a base for displays.

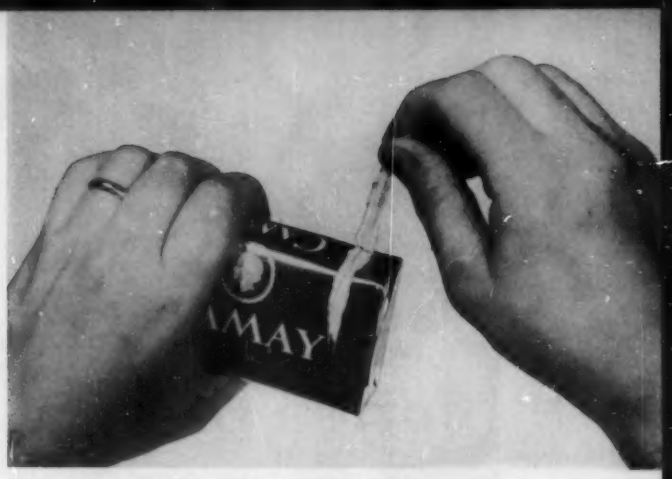
Recent additions to Motorola's unified family of packages include a foil set-up box for a high-quality transistor radio and a polyethylene bag used in combination with corrugated packing and cartoning. Though polyethylene has often been used as additional protective packaging for radios, Motorola's polyethylene bag is decorated and with a purpose. Artwork for the three-color printing is laid out to feature the M-signia and an imprint of "Roto-tenna," positioned so that it reads directly over this part on the radio, utilizing the film's transparent quality as an added merchandising feature.

The basic pattern has been set for Motorola packaging. New packages can be designed to harmonize with existing *unified* packages. Motorola believes that the more the M-signia and logotype are used, the more recognition the company will gain.

Credit: *Design program by Morton Goldsholl Design Associates, Inc., Corn Products Bldg., Chicago.*

Zip-foil for soap

New Camay adds a new convenience in the big swing to foil wrappers for toilet soaps: a tear tape that opens as readily as a cigarette package



Finger-tab slot is die cut in edge of foil wrapper to expose leading end of the tear tape so that consumer may strip package open easily.

Tear tape is the latest consumer convenience feature to be thrown into the ever-increasing battle of foil wraps on the soap shelves. Procter & Gamble is using a tear tape on its recently introduced pink-colored foil wrapper for new Pink Camay.

Development of the new wrapper went hand in hand with creating a new Camay soap. A dramatically new wrapper, incorporating familiar design features of "The Soap of Beautiful Women," was needed to call attention to the essentially new soap product. For added product protection the company decided to use a thermoplastic-sealing foil wrapper which would seal tightly and help preserve soap quality and freshness. Success of foil to merchandise soap has already made its mark, of course.

In looking at competitive foil soap wrappers, P & G found that these packages were difficult to open, a possible negative factor for the all-important consumer. The nation's largest soap marketer approved foil for Camay that was functional both as a protective wrapper and as a convenient wrapper for the housewife with its easy-to-open tear tape—familiar in the cigarette, chewing gum and a growing list of other industries.

To open foil-wrapped Camay the housewife merely pulls the tape which completely tears off the end of the wrapper. A special die-cut finger tab slot is cut into the edge of the foil wrapper (in the lower right hand corner of the back side) to expose the leading end of the two-ply cellophane tear tape. The company determined that this was the spot most convenient for the consumer to reach the white tape.

The tear tape is put on by machine during wrapping in the same way that this tape is put on cigarette packages. A paperboard inner liner is first put around the bar of soap to help shape the finished package. Then the tear tape and thermoplastic-sealing foil label are wrapped around the bar and liner and the completed package is heat sealed.

Credits: *Tear tape by The Dobeckmun Co., P.O. Box 6417, Cleveland 1. Wrappers by McDonald Printing Co., Inc., Arbor Place, Cincinnati 8, and The Specialty Papers Co., 802 Miami Chapel Rd., Dayton 1, Ohio, using foil supplied by Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky., and Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19.*

Foil wrapper's end is torn off completely by tear tape. Soap is conveniently removed from tightly wrapped foil. The new convenience device is on both regular-size and bath-size Camay Soap.

Packaged 'coffee break'

Nestle's vending-machine packs of instant beverages, taking lost time out of office coffee time, suggest vast new possibilities in high-speed, low-cost unit packaging

Significant developments in unit packaging have made possible the ambitious new program of The Nestle Co., Inc., to change the "coffee break" habits of the nation. They are taking packaged coffee, bouillon and cocoa right into the office or factory for dispensing from vending machines when and as employees want them.

Because the instant beverages in powdered form are individually packaged in laminated foil and other types of packages which will keep them fresh for three months or more, the vending machine—which occupies a mere 13-in. square of floor space—can be stocked for 180 servings at a time and no further attention is required. The machine is designed to be used in conjunction with a water fountain equipped to provide either hot or ice-cold water for mixing.

The necessity of catering to varying tastes in coffee—black, with cream, with or without sugar—has resulted in the most ingenious package of the lot, a three-compartment foil envelope which contains the three ingredients separately.

When coffee or other beverage—hot or cold—is desired, it is only necessary to put a coin in the

Compact vending machine, placed next to water fountain that supplies hot or cold water for mixing, dispenses single-service packages of Nescafe Instant Coffee, chicken or beef bouillon with crackers and Ever-Ready Sweet Milk Cocoa.

A three-in-one laminated, formed and heat sealed, partitioned package provides for coffee to be enjoyed black or white, with or without cream and sugar. One compartment contains the coffee; one, the Nescreme; the third, the sugar. Folded foil package with wooden stirrer is placed in paperboard sleeve for rigidity in vending-machine use.

machine for delivery of the packaged instant drink, a paper cup and a wooden stirrer. Contents of the drink-powder package, as desired, are emptied into the cup, which is filled with either piping hot or cold water from the adjacent water fountain. For hot water, a heating coil jackets one water line.

Initially, the vending machines are being stocked with single-service packages of Nescafe Instant Coffee, chicken or beef bouillon with crackers, and EverReady Sweet Milk Cocoa. Contemplated are snack items such as a foil-wrapped wedge of cheese with crackers, now being produced, Instant Nestea with crackers or cookies, etc.

In the new vending-unit packages, the wooden stirrer is being enclosed along with the drink-powder packets in a paperboard sleeve or tray that provides the rigidity necessary for vending-machine handling.

Low-cost, high-speed production of the packages is resulting in machinery developments that may well have far-reaching influence generally in the realm of unit packaging.

To produce the kind of packages needed entailed more than a year's development work on the part of The Nestle Co. in cooperation with Lehigh, Inc., Easton, Pa., manufacturer of the vending machine, and two leading packaging machinery firms which are doing the packaging on a contract basis on machines they have specially developed to produce packages (1) of the desired constructions and (2) at speeds to meet the very low-cost requirements.

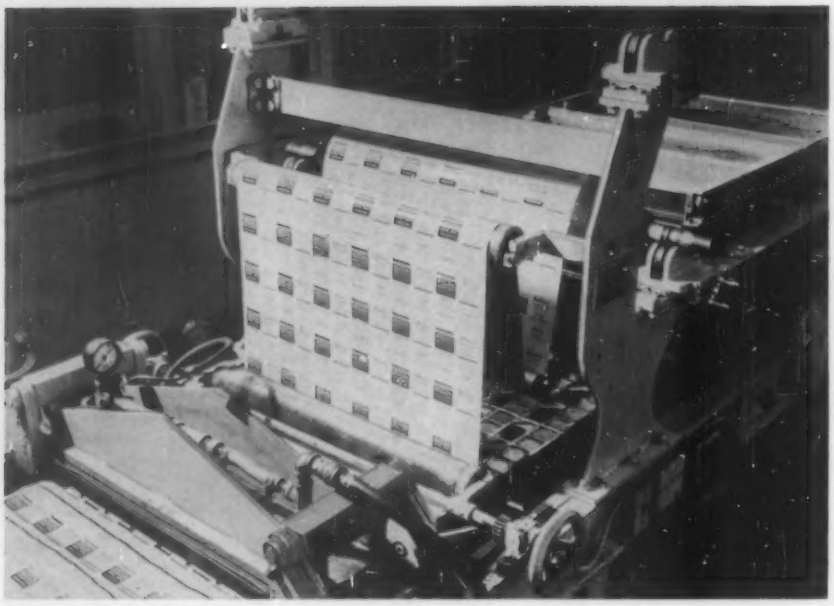
The first major task was to find a practical means of producing the three-in-one instant-coffee package. A contract packager accomplished this by modifying his standard unit-packaging machine so that for the first time it automatically forms, fills and seals in one operation a laminated aluminum-foil package containing three separate sections—one for Nescafe instant coffee, one for Nescreme and one for fine granulated sugar. With this package, the vending-machine patron may enjoy coffee according to choice, simply by using contents of one, two or all three of the separate sections.

An essential for the bouillon and cocoa packages was equipment that would make economically at high speed a paperboard tray rigid enough for vending-machine handling. A package machinery supplier accomplished this feat by developing a machine which takes paperboard from a roll and cuts and forms it into a tray which, after filling with the specified items, such as a foil packet of bouillon powder and a cellophane-wrapped package of crackers, is overwrapped with cellophane and equipped with a tearing tape—all completely automatically.

Most important consideration in the whole development was the question of cost. The packages had to be made to sell from the vending machine at established vending prices which would assure the vendor his required gross margin. This meant that the Nestle line must sell at a price of approximately 5 cents per unit. High-speed package production offered the only possible way to stay within this price limit.

Coffee package

The three-in-one coffee package, which folds like a book along a perforation down the center, has a three-dimensional section for instant coffee on one side and two separate three-dimensional compartments on the other for Nescreme and sugar. The packages, made completely automatically, are produced six at a time from two opposing rolls of material. One roll is vinyl-coated 0.002 aluminum foil, preformed by drawing as the web of material



Unit-packaging machine specially adapted by contract packager produces three-in-one instant coffee packages at about 200 per minute. Packages are made six at a time from two opposing rolls of material. Vinyl-coated aluminum foil is preformed to make three pockets. Pockets receive the three products from triple hopper. Opposing roll of printed, laminated foil covers pockets and is heat sealed along the flanges. Completely formed, filled and sealed, the packages are perforated and cut as they emerge from the machine.

passes through the machine horizontally to make three cavities or pockets. In three stages, these pockets receive the premeasured charges of the three products, which are delivered from a specially designed triple hopper on the same machine. After the three pockets are filled, the opposing roll of material covers them and the package is secured by thermoplastic sealing along the flanges. The covering roll of material is a combination of foil-paper-foil-vinyl, printed on the outside with a Nestle trademark pattern.

After perforation for easy opening and break-apart, the completed packages are cut as they are discharged from the machine, ready for folding, insertion of the wooden stirrer and hand loading into the paperboard sleeves, printed with brand identity and directions for use.

Production at present is all done by the contract packager who developed the packaging equipment. Production speed is reported to approximate 200 of the three-in-one packages per minute.

The tray package

The foil packet of Nestle granulated bouillon and a cellophane-wrapped package of crackers (supplied by the Sunshine Biscuit Co.) had to be enclosed in some kind of rigid paperboard unit. At first Nestle considered purchasing pre-cut carton blanks, and forming and filling them on carton set-up equipment. After considerable research, this procedure was found to be too costly to stay within a profitable selling price. The only alternative was to develop a machine that would produce, form and cellophane wrap the trays less expensively.

A specially designed machine is now successfully cutting and forming the trays automatically from a roll of paperboard—a development which offers not only wide versatility for additional varieties of packaged items Nestle may wish to sell in vending machines, but which, in principle, should have broad application for other in-plant carton-forming operations.

The machinery firm which undertook the development work accepted the assignment on a contract basis as a service of its engineering division. At present, this division is actually producing all the packages and expects to do so until it is felt that all bugs are out of the machine, which then will be installed in Nestle's own plant.

The trays must be held to close length and width tolerances to fit the dimensions of the vending machines, although depth may vary. The latter feature offers wide opportunities for combining other packaged food items for vending-machine dispensing.

At present the automatically formed trays must be hand loaded as they come from the machine,

prior to automatic application of cellophane wrap and tear tape. The machinery manufacturer, however, hopes to eliminate even this manual step.

The cocoa package utilizes the tray-forming production features developed for the bouillon-cracker package. The cocoa is initially unit packaged in a gusset-type glassine packet which is inserted into a vending tray with a stir stick and overwrapped.

All of Nestle's vending-machine packages are being planned for a shelf life which is considered adequate for this new merchandising venture.

The whole program is pointed out as an especially interesting example of the use of automation to develop new avenues for unit-packaged products, which would otherwise not be possible cost-wise without mechanical package production.

Nestle's "take-a-break" system grew out of the company's desire to extend the use of beverages in powdered form. Compactness of the package-drink dispensing machine makes it acceptable in locations where bulkier types of liquid-dispensing, hot-drink machines are inappropriate, not only for lack of space, but for insufficient number of people to support this type of dispenser. In its three columns, the small machine holds a total of 180 packs. The dispensing machines will be serviced by vendors and may be set to receive dimes, nickels or no payment at all in cases where companies may wish to supply the beverages to their employees free. However, it is pointed out that use of coins is advisable to discourage needless waste through unscrupulous raiding of the machines.

Need for the new packs and dispensers, according to The Nestle Co., is underscored by the fact that today an estimated 73% of all employees in office, factory and retail establishments take time off during working hours for a coffee break. The Pan American Coffee Bureau estimates this group comprises 41 million people drinking 8 billion cups of coffee a year. Assuming the average time is 15 to 30 minutes per "break," the custom represents millions of dollars in lost time per year.

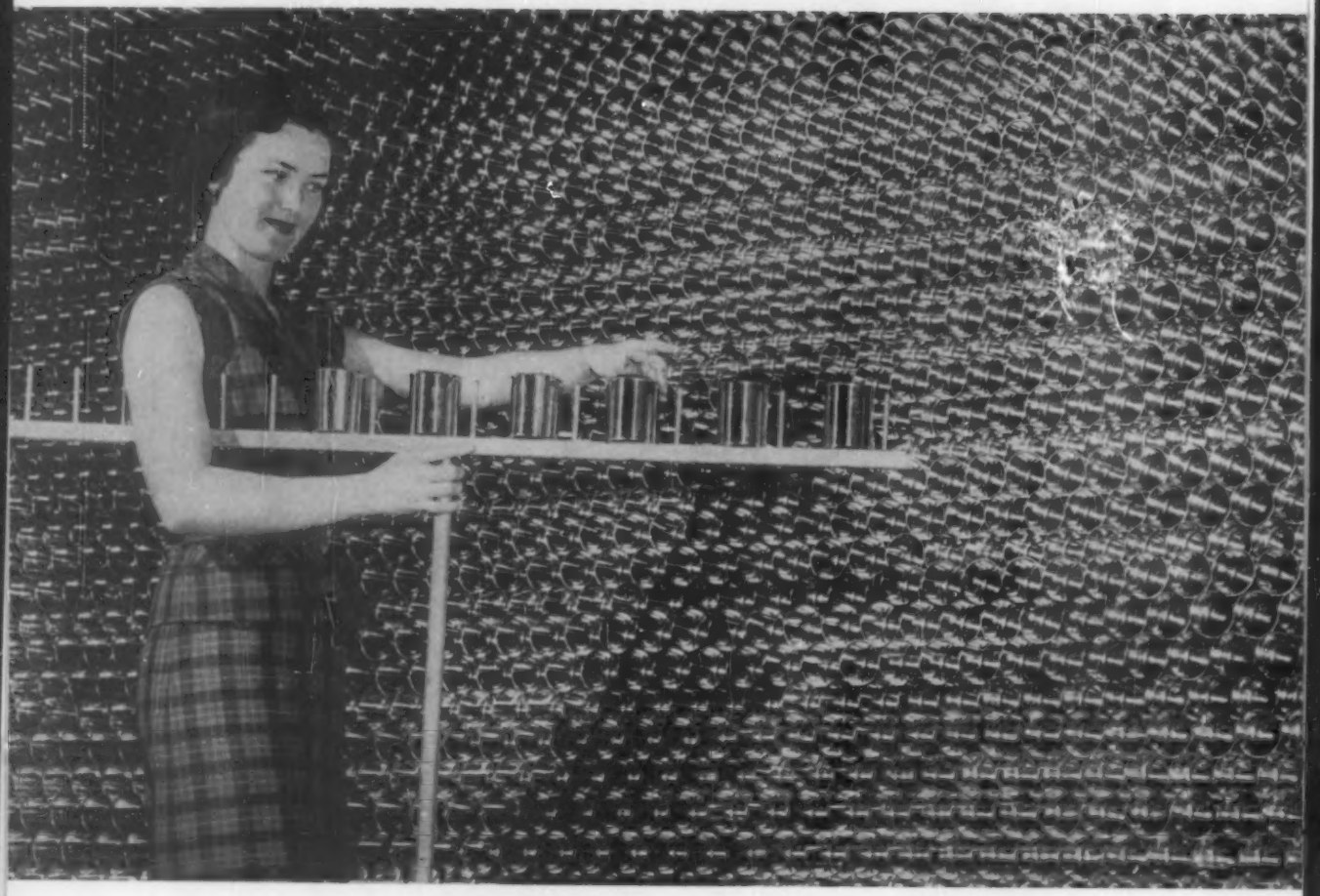
It is further pointed out that the new packs and dispensers fit ideally into such locations as gas stations, motels, sporting-goods stores, college dormitories, airlines, grocery stores and many other establishments with a transient trade where speedy service of beverages is appropriate.

Both Nestle and the maker of the vending machine are working closely with electrical manufacturers to encourage the development of water coolers that supply hot as well as iced water, the latter, of course, being suitable for iced coffee and iced tea. They are also studying related "snack" items made by other companies that might be packaged with the Nestle beverage packs for sale in the dispensers.

Credits: *Coffee packages—three-in-one unit-packaging machine and contract packaging service by Mason-Keller Corp., Harrison Ave., Roseland, N. J. Printed laminated foil by Shellmar-Betner Div., Continental Can Co., Inc., 100 E. 42 St., New York. Vinyl-coated foil by Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh, Pa., and Reynolds Metals Co., 2500 S. Third St., Louisville, Ky. Printed paperboard sleeve by Disbrow Mfg. Co., Inc., East Orange, N. J. Individual bouillon packets also produced by Mason-Keller Corp. Tray packages—Tray-forming and cellophane-wrapping machines by Scandia Mfg. Co., North Arlington, N. J. Contract packaging by Bronander Engineering & Research Corp. (an affiliate of Scandia), North Arlington, N. J. Paperboard by Disbrow Mfg. Co. Cellophane by E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del., and American Viscose Corp., Film Div., 1617 Pennsylvania Blvd., Philadelphia 3, Pa. Glassine paper by Riegel Paper Corp., 260 Madison Ave., New York 16. Tear tape by The Dobeckmun Co., 3301 Monroe Ave., Cleveland 13, Ohio, and Walsello Products, Inc., 132 Beckwith Ave., Paterson 3, N. J. Cocoa pouch—Contract packaging by Dumont Enterprises, Inc., 168 S. Van Brunt St., Englewood, N. J.*

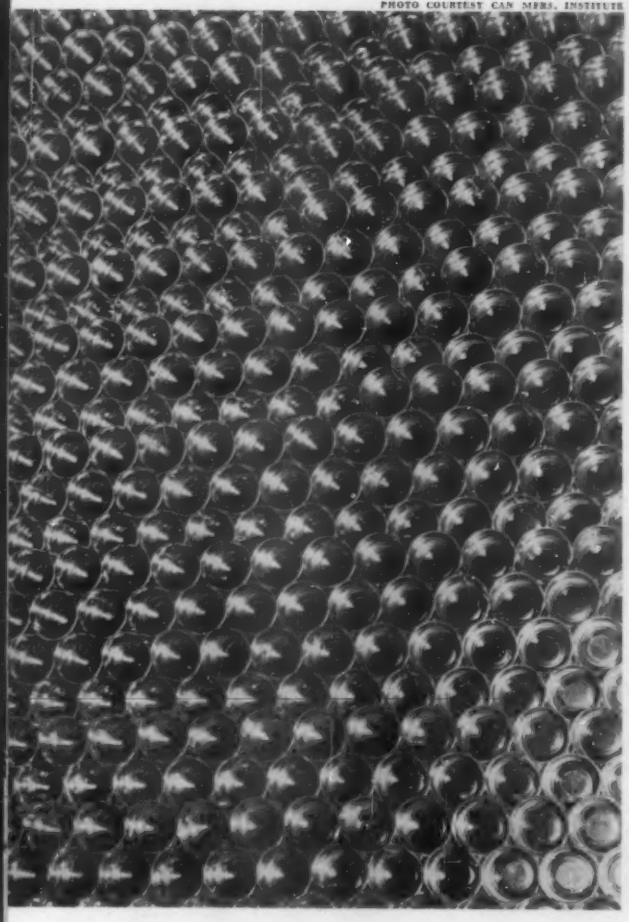
From a roll of paperboard, trays are scored, cut and formed completely automatically on specially developed machinery to produce economical vending-machine packages holding a foil packet of bouillon and cellophane-wrapped crackers. The trays are mechanically cellophane overwrapped and are equipped with a convenient, easy-opening, cellophane tearing tape.

1 SURVEY OF A SUPPLYING INDUSTRY



CANS

PHOTO COURTESY CAN MFRS. INSTITUTE



An industry that produces 40 billion containers a year now covers by far the broadest range of packaging requirements and with the benefit of research pushes steadily forward

The average American last year consumed the contents of 237 metal cans. With record production in 1956 of 40 billion units and sales pushing up toward $2 billion, the can industry is far and away the biggest supplier of rigid packages—approximately twice as big, in units of production, as its historic and closest competitor, the glass-container industry.

What makes the can, as a package, so important? How did the industry get where it is, what is it doing and where is it heading?

The industry dates back to 1810, when Peter Durand in England received patents on the use of tinplate containers for preserving foods. But its real growth has come only since the turn of this century and, as a universal package, the can has made more progress in the last 20 years than it has in all of its previous history of 127 years.

THE PACKAGE

The metal can has two basic qualities which, taken together, are hardly challengeable by any other package form: it is rigid and unbreakable and it can be a perfect and virtually ageless barrier against the deteriorating effects of light, air and moisture transfer. Because of its sturdy unbreakability, the metal can is capable of the highest filling and sealing speeds known to packaging—as high as 1,200 a minute.

Other packages have some of the can's other advantages—light weight, low cost, ease of attractive decoration, perfect liquid tightness and greaseproofness. Others have important qualities that the can cannot match. The rival glass container, for example, thrives on transparency, universal product compatibility and multi-trip re-use economy. But, on balance, as the figures show, the metal can is still regarded as the most widely useful package where product protection against all hazards is the primary consideration.

Particularly is the can the dominant package in the hot-processed-foods industry; it is still "canning" despite the fact that glass containers have in recent years become competitive on certain products where visibility or reclosure may be overriding advantages.

But so vastly has the can expanded beyond its original field that today only 58% of production goes to the processed-food industry. One out of five cans goes to a product field—beer and beverages—that was penetrated only 20 years ago through a triumph of can research. Beer cans alone account for 16% of the market; they represent the biggest single use of cans today. (In 1955 the American

PHOTO COURTESY ATLANTA PAPER CO.

Merchandising is stimulated by multi-packs which offer convenience to retailer, facilitate mass display at point of sale and encourage multiple purchase by the consumer.

public drank about 8 billion cans of beer and ale.) Non-food products take 19% of total can production and pet foods 3%.

The popular term "tin can" becomes steadily more and more a misnomer. Where tin is still used as a coating, it ranges down as low as ¼ of 1% in weight of the can and many millions of cans are being produced today that require no tin at all—not even for solder.

In trade terms, cans fall into two categories: "packers'" (or "sanitary") cans and "general-line" cans.

Most packers' cans are used for vegetables, fruits, fish and juices. Corn is the leading canned vegetable, by a wide margin, and peaches are biggest in canned fruits. Tomato juice leads all other juices.

General-line cans comprise more than 500 sizes and styles, covering such products as meats, shortening, beer, carbonated beverages, syrups, coffee, spices, tobacco, toiletries, surgical supplies, household products, paints, motor oils and disinfectants. General-line cans also include heavy steel containers, which are beyond the scope of this article although they are necessarily included in the over-all industry figures that are cited on the preceding page.

THE INDUSTRY

Although the can industry numbers more than 80 companies, an estimated 80% of the annual production comes from the two largest, hotly competitive companies.

Nevertheless, due to the decentralized nature of the food-canning industry and the fact that empty cans can't be shipped economically for long distances, can-making facilities themselves are decentralized and some 277 plants are located in important food-processing or general-manufacturing sections throughout the country. Thirty-two per cent of all can production takes place in the Eastern states; 44½% in the Central states and 23½% in the West. One plant can turn out as many as 10,000,000 cans a day and has manufactured over a billion cans in a year.

The major can companies maintain research and development facilities which are among the finest and most extensive in the entire packaging field. Chemical, metallurgical and mechanical research are responsible for the significant breakthrough of the

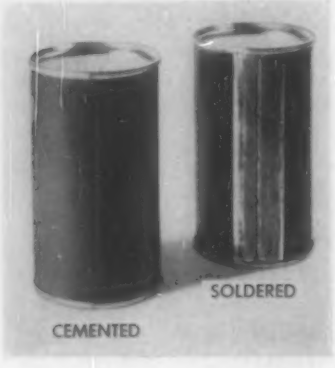


PHOTO COURTESY AMERICAN CAN CO.

Cemented seam not only reduces need for tin—a big industry trend—but also improves appearance by permitting decoration all around the can.

industry into important new product areas. On the whole, the industry turns back 1¼% of income, or close to $40 million yearly, into research.

Few supplier industries are more thoroughly organized and equipped for customer service. From the beginning, it has been the practice for the can companies to develop, perfect, install and service in customers' plants the can-closing machinery on which success of the package depends. Can makers have made many significant contributions, too, to filling and handling equipment. Nevertheless, an open market exists today in canning machinery, to the extent that any packager may, if he finds it expedient, set up his own can-manufacturing as well as filling and closing lines.

Few packaging operations today, however, could justify the high-speed, fully automated equipment which the can companies have developed in their ceaseless pursuit of lower costs. Some of these machines now produce cans at the machine-gun rate of 600 per minute. Most can factories also are equipped to lithograph can bodies at approximately the same rate and to supply finished cans and lids at a daily rate in pace with peak production of the biggest canning plant.

A recent trend in industry practice which will bear watching, for its possible contribution toward lower can costs, is the movement toward more fully integrated can production lines. The first can-manufacturer's plant devoted exclusively to the processing of tinplate is expected to be completed this spring. It will receive steel in large coils and perform several of the operations formerly executed by steel suppliers, largely eliminating the traditional use of pre-cut sheets of plate.

At the other end of the line, there have been within the last year major improvements in the industry's methods of delivery of cans to customers; random-packed bin loads can now be dumped from

PHOTO COURTESY CONTINENTAL CAN CO.

Convenience feature which was recently introduced is the self-tracking beaded rip strip which assures trouble-free opening by the consumer of key-opening cans.

Coil feeding of steel or tinplate strip, instead of sheets, promises even higher can production speeds. Some can plants now manufacture their own tinplate.

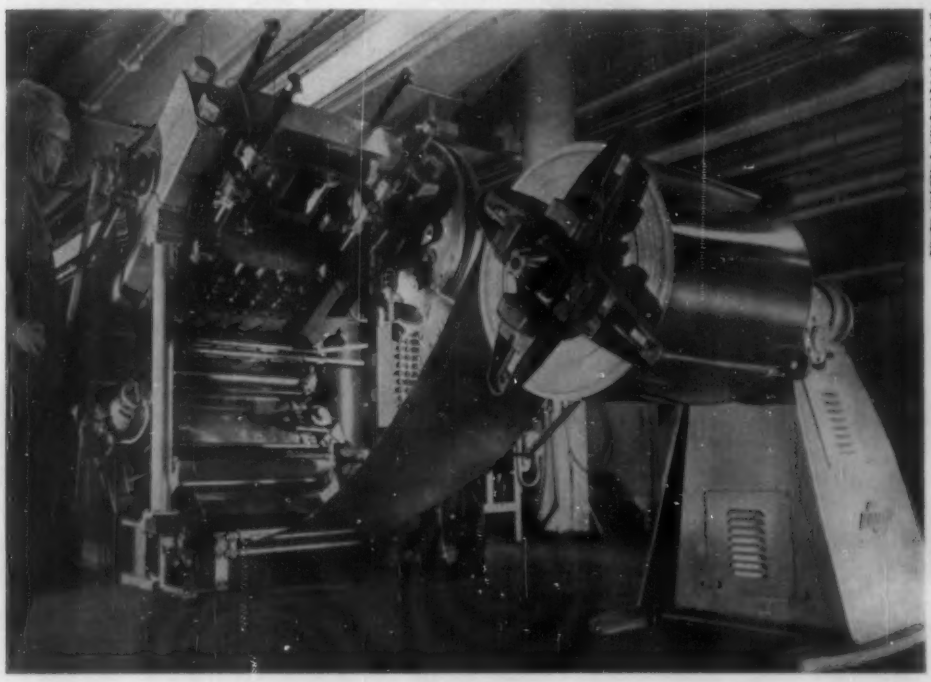


PHOTO COURTESY CONTINENTAL CAN CO.

truck trailers directly into special conveyors and unscramblers that will feed the canning lines at high speed without human attention.

DEVELOPMENTS

The only real enemy of the metal can is corrosion. Since a sufficient coating of steel with tin is a specific answer to this problem, it is a tribute to the can industry's willingness to face up to the political and economic problems of the world today that the major portion of its research and development for the past 15 years has been directed toward eliminating tin.

The use of hot-dipped tinplate—which prior to 1941 made practically all cans—has shrunk to a few problem products. The electrolytic process, a World War II development which provides a thinner but more uniform coating, is used for the great bulk of food cans. And today the completely tinless can —which seemed like a research man's dream only two or three years ago—is a reality and is being used for such products as motor oil, antifreeze, coffee, detergents, etc. A synthetic cement used in place of solder to seal the side seam has eliminated the last need for tin in these cans, which do not need to stand heat processing.

Can of the future may be this experimental container, displayed by research chief, Dr. Roger H. Lueck, made of aluminum-coated steel with welded side seam. It not only eliminates all tin and solder, but makes a stronger can.

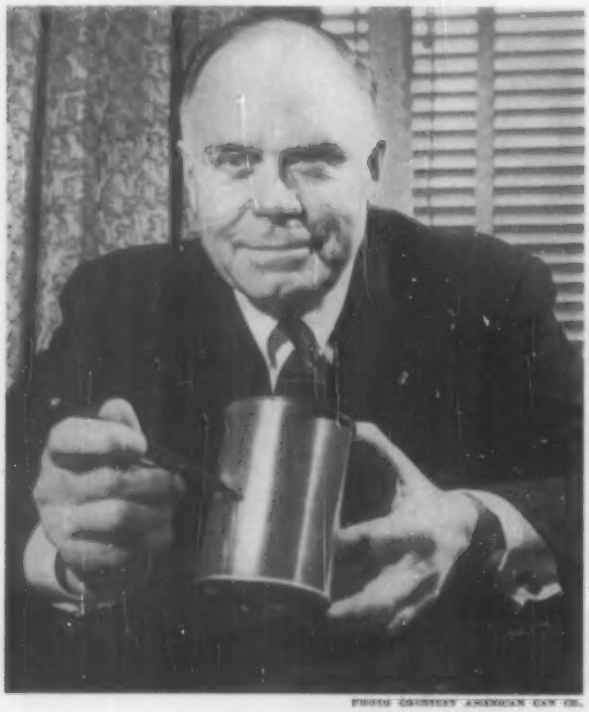


PHOTO COURTESY AMERICAN CAN CO.

The last year has seen the large-scale use of enameled-steel-bodied cans for dog food and limited quantities of such cans have been produced for beer and frozen citrus concentrates.

Altogether, the tin-reduction program since 1941 has saved approximately 257,000 tons of tin, valued at close to half a billion dollars. But the monetary saving is secondary. Tin is a strategic material, world supplies are limited and there are no sources in North America. The can industry is determined to make itself completely independent of all foreign supplies.

In place of tin, the can maker now has a whole galaxy of synthetic enamels to meet almost any product problem.

There are the oleoresins, useful in the packing of fruits, vegetables and industrial products such as motor oil; also, as undercoats for beer and ale cans. There are the phenolics; resistant to animal fats, they are used for meats and fish products and, industrially, in cans for cosmetics, cleaners, dentifrices, medicinals, detergents and paints. There are the vinyls which, although low in heat resistance, are valuable for cold-processed products sensitive to metals and to off-flavor development. Among the newer coating materials are the epoxy resins, specified for highly corrosive products such as some detergents and water-base latex paints. One of the most successful liners for carbonated beverages—a real problem product—is a two-phase system consisting of a vinyl copolymer and an epoxy. Even waxes are now used inside cap-sealed soft-drink cans, being applied after the can is assembled.

Actually, about three-quarters of all cans manufactured are lined today with one coating or another —from simple "sanitary" enamels to the expensive two-part linings typical of beer and beverage cans. It is estimated that between seven and eight million gallons of specialty coatings are consumed by the can industry yearly.

The newest idea in coatings has as its objective not so much corrosion prevention as convenience. Classified as a "release agent," this is a phenolic coating modified with fatty acid amides. Now being used commercially for dog food, luncheon meats and other meat products to prevent sticking of the contents to the container, it may soon be extended to other products, including canned baked goods.

An important plus value of the cemented side seam is that it permits all-around lithography, eliminating the bare-metal strip [*Continued on page 196*]

Triple-use package

For molded plastic dinnerware and tumblers, it's a shipping case, a store display and a salesman's kit

A three-in-one corrugated package for melamine dinnerware gets a lot of extra mileage. The new package is serving the Dinnerware Div. of Chicago Molded Products Corp. as a shipper, a carrying case and a display.

To give greater promotion to its Cloverlane dinnerware and Starlane tumblers, Chicago Molded Products decided to send a small display to outlets which could not afford the space required for the company's larger display set-ups. These include conventional dealers who sell in commercial lots to such institutions as industrial in-plant dining rooms, restaurants, cafeterias, drive-ins, schools, hospitals and churches. The company also had its eye on non-conventional dinnerware dealers such as marine supply stores for boat owners where space for non-boating products is at a premium.

The display unit fits into an outer corrugated container which can be formed into a convenient carrying case by breaking the top gummed tape. This releases a built-in boxboard handle so that a salesman can carry the same display he has in his showroom for presentation to an institution.

The three-in-one package is formed of two basic parts. The outer carton is a corrugated shipping container with built-in handle, which is sealed flat against the top of the carton. The inner unit is a die-cut tray which slides out to reveal nine pieces of Cloverlane dinnerware and a Starlane tumbler.

The flexibility of this package has made it an ideal shipper and display for a wide range of dealers who previously received no such material. The company is finding new outlets and uses for the container which were not included in the original planning for this package.

Credit: *Carton and inside display drawer by Bell Fibre Products Corp., 1111 E. 83 St., Chicago.*

First a shipper is sent to small outlets and dealers for Cloverlane and Starlane melamine dinnerware.

Now a carrying case, corrugated box still protects contents and is convenient to transfer from one location to another. Built-in handle is sealed flat against top by tape when container is shipped by Chicago Molded Products.

Now a display. Inside the corrugated shipper the self-contained display slides out and is ready to do a consumer-selling job for the Cloverlane and Starlane brands.

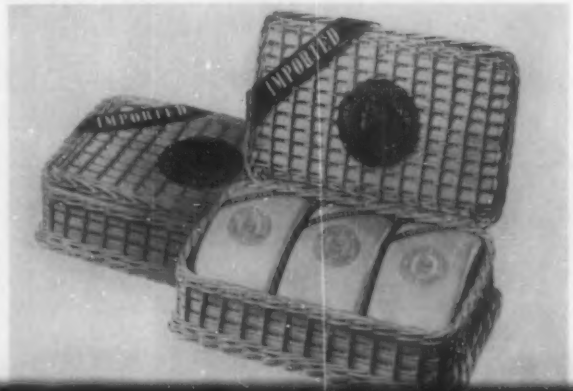
Polyethylene eye-tip tube

The polyethylene applicator tip on this collapsible metal tube for cream mascara sold by Avon Products, Inc., is an integral part of the container itself. Principal advantage claimed for polyethylene in this application—as well as for use by pharmaceutical firms in packaging ophthalmic ointments—is that the molded plastic tip eliminates the possibility of any foreign substance, such as metallic dust or slivers, from coming into contact with the eye when the product is being used. The molded tip obviates the need of a liner in the tube cap. It is placed in the tube by the supplier in a semi-automatic operation. After extrusion, the tube is cut to the desired length and threaded to receive the plastic cap on multi-spindle trimming machines. By means of special jigs, the same machines insert the polyethylene tip, which is positioned manually and pushed into the tube neck by the jigs. The neck is seamed around the plastic tip. Cost is the same as that for metal eye-tip tubes, according to the company.

Credit: *Collapsible tube, polyethylene tip and plastic cap by Wheeling Stamping Co., 2100 Water St., Wheeling, W. Va.*

DESIGN HISTORIES

Virgin Island handcraft



Hand-woven wickerwork made by Virgin Islanders gives distinction to packages for two new products—St. Johns Bay Talc and St. Johns Bay Soap—recently added to the line of men's toiletries sold by the West Indies Bay Co. Packaging for these products, which are imported for sale in better department stores and men's shops throughout the United States, gives them a quality appearance appropriate to their distinctive fragrance derived from the Virgin Islands' bay tree. The metal container for talc has its body completely encased in wickerwork. Not only does this enhance the appeal of the package but it has a practical quality in that the container is easy to grip without slipping. Three cakes of soap nested in the hand-made wickerwork basket upgrade the product for gift sale. Pressure-sensitive tape imprinted with the word "imported" in stencil-like capital letters and embossed aluminum foil labels complete these decorative packages.

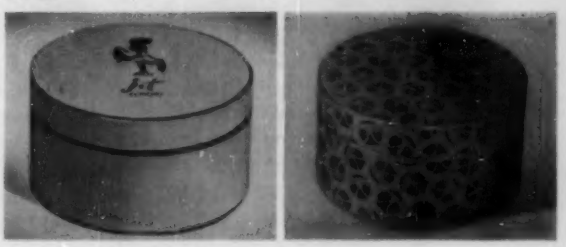
Credits: *Metal containers by J. L. Clark Mfg. Co., Rockford, Ill. Tape by Top Flight Tape Co., York, Pa. Labels by F. E. Mason & Sons, Batavia, N. Y.*

Corday coordinates family

The essential of strong identity and family resemblance to meet the requirements of contemporary American cosmetic merchandising is indicated by four new packages for bath powders by Corday Parfums, Inc. The new package design not only coordinates four boxes for bath powders, which formerly were as diverse in appearance as the two old packages illustrated, but provides a new shield-ribbon-and-bow logotype now adopted to give similar trademark identity to eau de toilet, eau de parfum, travel kits, perfume atomizers, and others

Each fragrance is distinguished by a different package color scheme on the outer and inner band, and in the matching shield. Gold and a third color complete each package. The powder puff and ribbon are color correlated to the bands. Backgrounds are white. The distinguishing colors simplify fragrance selection for sales personnel and shoppers as well as provide a gay effect in display.

OLD



Credits: *Design by Lane-Bender, Inc., 157 W. 57 St., New York. Box wraps by C. H. Forsman, 318 W. 39 St., New York 18. Boxes by E. N. Rowell Co., Inc., Batavia, N. Y.*

DESIGN HISTORIES

Foil for Good Luck

Effectiveness and flexibility in mass display have been achieved by Lever Bros., Ltd., for Good Luck margarine sold in the Canadian market with this new gold-colored aluminum foil wrap. The package presents a varied pattern and an eye-catching "front" that focuses maximum attention on brand name. The design, repeated on all panels, assures brand identity no matter how the packages are stacked. Lever Bros. wanted to maintain Good Luck margarine as a top-quality premium brand and the change to foil was prompted by the growing competition the product was facing from low-priced competitors. A white grid panel at the left of the face of the new package carries the brand name in powerful farm-green logotype. Against the gold-colored foil are yellow-centered flower buds and the word, "margarine," in yellow. Tear-strip opening and price-marking area complete the package.

Credits: *Foil wrap by Canada Foils, Ltd., 1891 Eglinton Ave. E., Toronto. Carton by Marathon Packages, Ltd., 100 Sterling Rd., Toronto. Parchment inner wraps by Appleford Paper Products, Ltd., 200 Bay St., Toronto.*

Flexibility for variety of complicated hosiery merchandising operations, apparently, is a big advantage claimed for the clinch package. At R. H. Macy & Co. the package is winning enthusiastic acceptance for counter selling of two-pair units of nylon irregulars. Stock straightening-up and inventory are greatly simplified by clinch package.

Polyethylene clinch pack

New non-adhesive way of attaching paperboard to plastic film bag suggests intriguing new possibilities for convenient retail handling of soft goods

A new method of packaging soft goods designed to bridge today's big gap between a box and a flexible transparent package appears to be gaining considerable favor as a means of solving difficult handling problems for retail "table operations."

The Chester H. Roth Co., New York, has already adopted this new method extensively for women's nylon stockings. J. C. Penney Co. is using it for men's zipper jackets. Burlington Mills has adopted it for a wide line of men's hose. Another important user is Manchester Knitted Fashions for boys' and girls' wear. It has been adopted also by Scout-Tex for a wide line of infants' wear.

The patented package consists of a paperboard folder or boot of die-cut and scored folding-box construction, locked by specially positioned tabs and slots which clinch the open end of a polyethylene bag inside the boot after the merchandise has been inserted. The securely locking feature is possible because of the stretchable characteristic of the polyethylene, which clinches over slots in the paperboard without puncture or tearing. No sealing is

Locking feature is possible because of the stretchable characteristic of polyethylene film bags, which clinch over special slots in paperboard folder. The package does not require sealing.

required. Only a simple jig is needed to apply the paperboard piece has a squared base like a box,

When in place on the polyethylene bag, the clinching boot gives end rigidity and bulk for easy handling to an otherwise fully transparent package. It provides a place for trademark identity as well as any other desired selling messages. Because the paperboard piece has a squared base like a box, it permits complete end identification for stacks of the packages—a problem heretofore unsolved.

Chester H. Roth is finding the method economical and efficient for merchandising multiple pairs of nylon irregulars; for packaging chain-store, private-brand, limited-time offers, and for including a premium, such as a rain bonnet, in with stockings.

Biggest advantage, apparently, is ease of handling for the retailer. The package is as efficient for shelf stacking as for table operations. Because it provides a completely closed package, it eliminates all the straightening up and refolding sometimes involved in soft-goods merchandising. And all merchandise is completely protected from shop handling. For a special sale event, the packages may be placed right on the table; remaining stock goes back to the shelves like boxes when a sale is over. Inventory is simplified because stacked packages with printed end data are easy to count.

Hosiery can be packaged in multiple units for special events. Sometimes cellophane pre-wrapped single pairs are packed as multiples for return to stock later. Colorfully printed promotional pieces may be slipped into the bags with the merchandise before the paperboard clinch is applied to show through the polyethylene, calling attention to the promotion without the cost of special wraps.

By designing the boot with perforations, preprice tabs or seasonal promotions are made easily removable without disturbing the packages for return to regular stock. A sweater firm designed one of the paperboard clinchers for a Christmas promotion with a tear-off section to eliminate the Santa Claus theme after the holiday season.

By inserting a scored and die-cut chipboard easel through the back of the paperboard clinch, the packages may stand up for angled display.

For hosiery, Chester Roth says, the packaging is comparable in cost to other types, but the company is most enthusiastic about it because of the flexibility it offers for the complicated hosiery merchandising situation today. The new packages, according to the company, meet some requirements in practically all types of outlets—self service, self selection or clerk service—as well as for a variety of selling events. Stores are enthusiastic because of the ease of handling that saves costly labor.

The light weight of the packages saves an estimated 50% on shipping cost, according to the supplier, and they can be designed to fit conveniently into practically any type of display fixture.

Credits: *"Poly-Clinch" packages developed and manufactured by M. Korn Packaging Co., 1225 Broadway, New York 1, using polyethylene film supplied by Chester Packaging Products Corp., 684 Nepperham Ave., Yonkers 2, N. Y.*

Three variations of the pack used by Chester H. Roth Co.: (left to right) nylon irregulars sold by Macy's, Mojud brand with paperboard clinch at top for tiered display and three-pair Admiration unit with paperboard clinch to flag a one-cent sale. Colorfully printed inserts placed in polyethylene bags before paperboard clinch is applied reportedly save big printing bills for special wraps.

Perforated tear-off tabs for seasonal promotions are removable without disturbing packages for return to regular stock. Squared base of clinching paperboard permits complete end identification of stacked packages. Bur-Mil Argylls package shows how chipboard easel slipped through back of paperboard clinch supports pack for angled display position on counters or in windows.

Square jars

Stokely turns to square shape for its pickle line in an effort to conserve dealers' shelf space and finds added benefits in better shipping, stacking and display

Interlocking feature makes square pickle jars easy to stack. New Stokely-Van Camp pickle jars nest snugly vertically or horizontally. Foil label is easier to read on a flat surface and square-shaped jar is more convenient to face towards the front.

In a concerted effort to help grocers make more efficient use of dwindling shelf space, Stokely-Van Camp is introducing square jars with interlocking tops and bottoms for its extensive line of quality pickles. This is believed to be the first complete line of food products to be packaged in this type of jar.

With pickles the fifth most profitable section in grocery operations and national sales volume at more than 40 million cases (exceeding peas, corn or tomatoes), Stokely's move is a significant one.

The company's new square jar enjoys a great many retailer and consumer advantages. Foremost is almost maximum use of shelf space—reportedly saving merchants from 7 to 14% of area used for comparable sizes of round jars. This space economy is achieved by the square shape and the top and bottom locking feature. Jars nest snugly and firmly both horizontally and vertically.

Stokely finds that there is far less breakage in shipping because flat surface is nested against flat surface. Fewer jars are broken when they are stacked on shelves since they "lock" into place. Often a few jars will be left over after a case of

pickles is set up in a display. On top of a display such odd numbered jars are quite susceptible to breakage. The "Stokely square," as the Indianapolis packer terms the jar, is far less prone to being knocked off displays. Corrugated sheets between layers of jars are unnecessary, the company says, with this interlocking bottle. Elimination of these liners and the easily handled square shape have increased the speed of stocking shelves.

The flat front gives greater selling surface which Stokely uses to advantage with a blue, red, yellow and white foil label to help emphasize the company's pickle quality reputation. The square jar offers greater assurance that the label will be faced front.

Another important factor, again a result of the flat sides, is minimum visual distortion of the product itself. More of the product is exposed to the customer. By keeping the foil label near the bottom of the square jars, Stokely assures the customer a good view of the product. In the larger sizes, at least half of the front displays the product, which should assist in impulse sales.

Stokely has found that in some instances there is also less physical distortion of the product in a square jar.

Consumer advantages, of course, are as important as dealer considerations. Pickles are easily removed from the wide mouth. Customers, stock boys and checkout girls find the square shape easy to handle. The "Stokely square" stores neatly and conserves space on pantry shelves or in refrigerators.

The jar has re-use value as a juice container, refrigerator jar and, particularly, as a condiment jar. Stokely is considering placing an attractive decal, such as a label for "cornstarch" on the back of the jar for an added re-use benefit. The housewife could remove the front label and have an attractive looking bottle appropriately marked for spices, pepper, confectionery decorations, cinnamon candies, tea, etc.

Stokely is merchandising pickles and pickle products in five sizes of square jars—8, 12, 16, 22 and 32 oz. The 16-oz. jar comes in two square shapes—a tall jar and a shorter, fatter one.

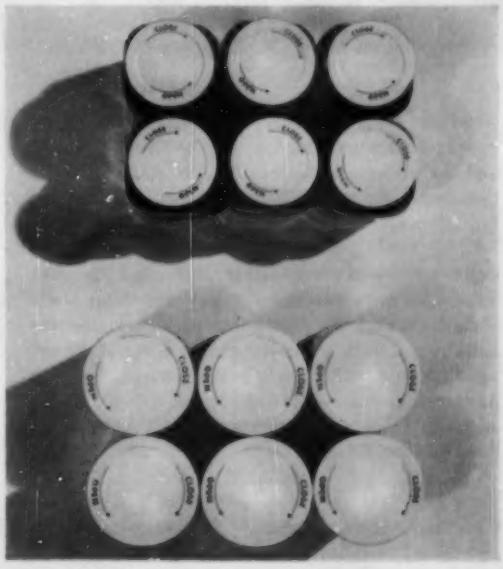
Most closures are twist-off, four-lug caps with flowed-on gasket. Products are sealed by vacuum.

Stokely, impressed with the result of this change, is considering putting more of its products in square jars.

Credits: *Jar by Armstrong Cork Co., Lancaster, Pa. Caps by White Cap Co., 1819 N. Major Ave., Chicago. Foil label by Milprint, Inc., 4200 N. Holton St., Milwaukee 1, using foil by Reynolds Metals Co., 2500 S. Third St., Louisville, Ky.*

Six types of square jars range from the large quart to the small 8-oz. jar. The pint jar comes in two shapes, the squat shape (on right of bottom row) and the tall shape (at left on top row). Other sizes are the 22-oz. and 12-oz. jars. Twist-on lug caps are used on most bottles.

Space-saving economy is impressively illustrated by comparison of top-view photo of new 12-oz. square jars (above) with conventional 12-oz. round jars. A dozen Stokely squares in the 12-oz. size save 14% shelf space over regular 12-oz. jars.



1

2

3

4

5

Packaging pageant

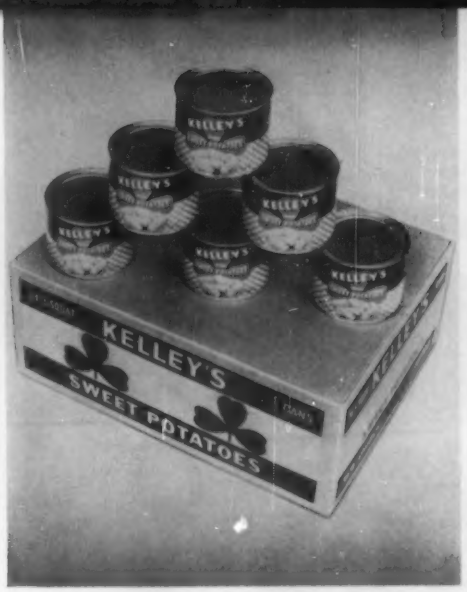
1 This new type of cellophane-overwrapped tray package gives increased space for brand identity and extra strength for handling in self service to Christman Sausage Co.'s frankfurters. Package, Marathon Corp., Menasha, Wis.

2 Cellophane overwrapping is used to stimulate multi-unit sales of Strombeck-Becker Mfg. Co.'s Walt Disney plastic assembly models as a Disneyland Stage Coach kit, holding three boxes of the assemblies on a white 14-ply backing board. A paper band across one corner carries price spot and kit number. Cellophane, American Viscose Corp., Film Div., Philadelphia, Pa.

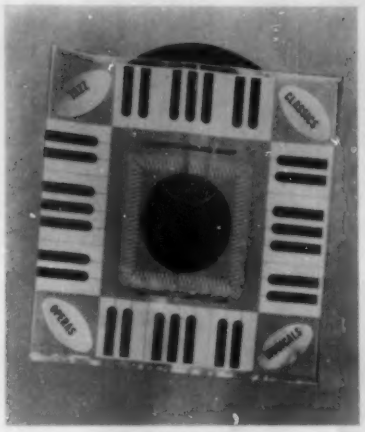
3 Shoe polish is as easily applied as lipstick with this rigid, impact-extruded aluminum container-applicator. A twist of the base feeds polish to a foam rubber applicator, capped by a screw closure. Container, Aluminum Co. of America, Pittsburgh.

4 Private-mold fifth wine flask is a new idea by Alta Vineyards Co. Symbolic grape motif is molded around shoulder and base. These graceful bottles are designed for high-speed line operation. Bottles, Glass Containers Corp., Hayward, Calif. Labels, Lehmann Printing & Lithograph Co. and Schmidt Lithograph Co., both of San Francisco. Cel-O-Seal closure, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Metal cap, Western Crown Cork & Seal Corp., San Francisco.

5 T. L. Brice Co.'s line of pickles is now packed in easy-gripping oval jars sealed with metal lug closures and glass barrel packages in quart and half-



6



7

8

9

10

Packaging pageant

gallon sizes. Half-gallon size has a lithographed screw closure. Glass and screw caps, Owens-Illinois Glass Co., Toledo. Lug closures, White Cap Co., Chicago. Labels, Graphic Arts Label Co., Fort Worth, Tex., and Epsen Lithograph Co., Omaha.

6 To give quick identity, the green shamrock used on labels of H. E. Kelley & Co.'s canned sweet potatoes is now printed on four sides of the product's new shipping containers. Shipping container, Stone Container Corp., Chicago.

7 Dramatic, flexographic-printed envelopes of heavier 4-mil polyethylene replace light-weight, unprinted polyethylene bags for Sutson, Inc.'s "Record of the Month." The new envelope won an award in the recent National Flexible Packaging competition. Envelope, Wrapture, Inc., Flushing, N. Y.

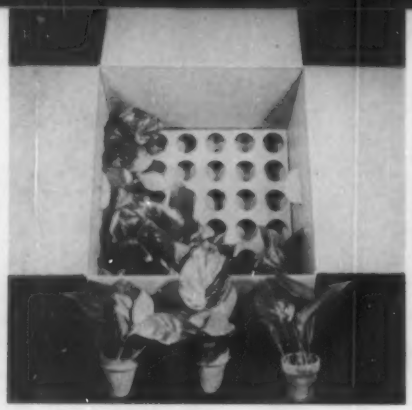
8 Nestle LeMur Co.'s new Nestle Liquid Creme Colorinse comes in flexible packages made of an acetate-foil-vinyl lamination. The colorful packages, each holding enough product for one application, are formed at high speeds and are economical to ship. Packages, The Dobeckmun Co., Cleveland.

9 The foil label has entered the shortening field with this striking package for Flair, a product of Anderson, Clayton & Co. Foods Div. The trade name is in gold against a white background and product illustrations are in full color. Design, Raymond Loewy & Associates, New York. Label, Milprint, Inc., Milwaukee. Cans, American Can Co., New York, and Continental Can Co., New York.

10 Not eggs, but a toy is packaged in this egg-type carton. The two-piece, egg-shaped acetate shells

11

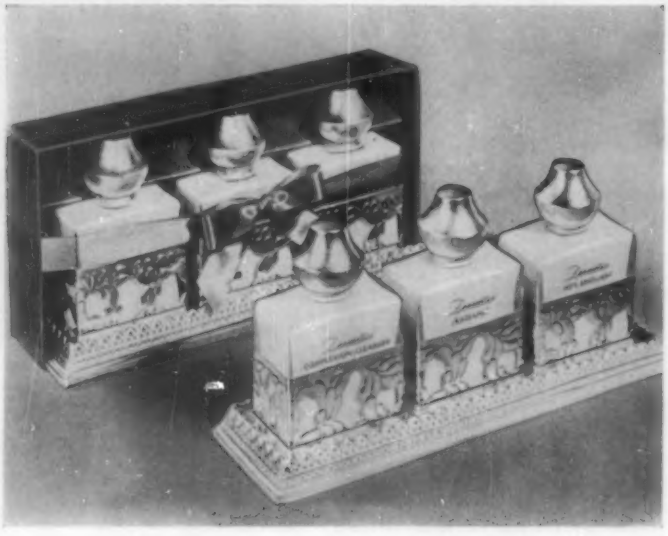
12



13

14

15



Packaging pageant

hold a modeling material. Twelve pink and blue shells are suspended in the carton's individual cells. Carton, Robert Gair Div., Continental Can Co., Inc., New York.

11 New shrink wraps provide longer storage life for Gambardella Mozzarella cheese. This new package was a winner in the recent National Flexible Packaging competition. Package, The Cryovac Co., Div. of W. R. Grace & Co., Newark, N. J., using Dow Chemical Co.'s saran film.

12 Greenwood Greenhouses' potted plants are protected for shipment in this corrugated box with a special die-cut insert for holding 36 pots. With top removed, the box serves as a point-of-sale display. Container, Gaylord Container Corp., Div. of Crown Zellerbach Corp., St. Louis, Mo.

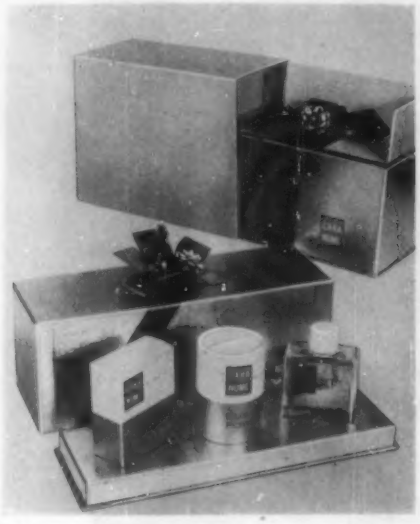
13 Wonderland Fresh Sliced Frozen Apples marketed by Goldman Foods, Inc., are visible in transparent, printed polyethylene bags. The 20-oz. gusseted bags are unaffected by freezer temperatures. Bags, Cello-Foil Products, Inc., Battle Creek, Mich., using Visking Corp.'s Visqueen film.

14 Polyester film is reported by La Premiata Macaroni Corp. to have eliminated breakage previously experienced with transparent packages for its spaghetti. The wrap is a 100-gauge sheet printed in three colors. Wrap, Milprint, Inc., Milwaukee, using Du Pont's Mylar polyester film.

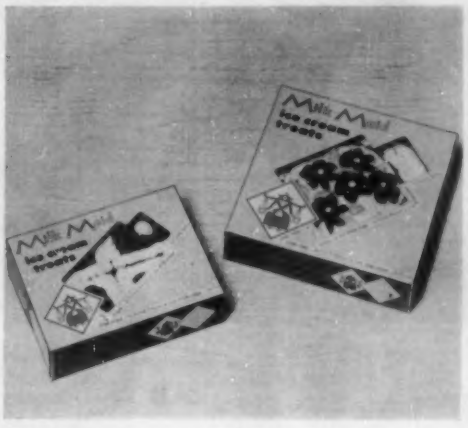
15 Rilling Dermetics Co.'s new Star Vanity Set consists of a metallized butyrate plastic vacuum-formed tray holding three bottles in a gift display box. Tray, Newhart Products, Inc., Devon, Conn., using

16

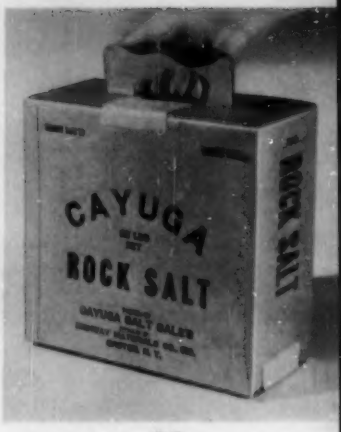
17



18



19



20

Packaging pageant

Mirro-Brite plastic by Coating Products, Inc., Englewood, N. J. Glass, Carr-Lowrey Glass Co., Baltimore, Md. Foil labels, Foxon Co., Providence, R. I. Cap, Flyndustries, Inc., New York. Set-up box, Warner Bros. Co., Bridgeport, Conn. Ribbon, Parfait Promotional Packaging Co., New York.

16 A die-cut paperboard tray with cellulose acetate sleeve gives full visibility to tiny reproductions of liqueur bottles on top of six cocktail sticks marketed by F. S. Richardson of London. Container, Elco, Ltd., London, using British Cellophane, Ltd., acetate.

17 Foil labels are printed in seven colors for Grocery Store Products Co.'s three types of B in B Broiled in Butter Mushrooms. Design, Jim Nash Associates, Inc., New York. Labels, U. S. Printing & Lithograph Co., Cincinnati.

18 Cara Nome gift set of beauty soap, dusting powder and cologne is dramatized by a specially designed die-cut tray and sleeve. A Christmas decoration dominates the gold-colored foil cover paper. Package, W. C. Ritchie & Co., subsidiary of Stone Container Corp., Chicago.

19 One-piece, die-cut cartons in a new, modern motif give a party-like appearance to Milk Maid Ice Cream Co.'s ice-cream tarts, pies and eclairs. Cartons, Sutherland Paper Co., Kalamazoo, Mich.

20 Cayuga Salt Sales follows a trend toward larger take-home packages with its new 25-lb. corrugated container for rock salt. There is a perforated pouring spout at the side of the container and a carry handle. Container, St. Regis Paper Co., New York.

NEW

OLD

Contemporary appearance is achieved by elimination of old heavy borders. New design coordinates a whole family of Springs Mills packages. Informative copy is now positioned on both the face and side panels of wraps to make identification and selection easier for sales personnel as well as customers.

New flexibility for sheet wraps

By adopting 'hourglass' motif on tough polyethylene film Springs Mills gets rid of dated look and makes economical use of one size wrap for all fold sizes

There comes a time in the merchandising career of all packages when they seem to acquire a "dated" look. Realizing that its packages might be approaching this point, Springs Mills, Inc., New York, in cooperation with a leading design organization, undertook to re-evaluate its entire packaging program in relation to today's over-all selling approach.

The net result is the adoption of a complete house redesign program for Springs Mills that is establishing a new coordinated family of packages, contemporary in appearance, sturdier for retail performance and produced at a very substantial over-all saving. The story should be of interest to all soft-goods packagers.

Preliminary studies of the situation revealed that through years of growth, expanding markets and

the addition of new products, nobody had taken the time to review or revise what already existed or to integrate the new additions.

The transparent film wraps for Springcale, Spring Knight and Sumter sheets and pillow cases, with their heavy borders, had an outmoded look, it was thought—hard to define, but a potent factor in consumer acceptance or rejection. With the exception of the Spring Maid trademark there was no family consistency of lettering or decorative motif.

A thorough check of retail outlets showed that one of the most costly problems was soiled and unidentifiable merchandise due to package failures. Retailers, extending self-service operations, also desired single wrapped sheets instead of pairs.

A check on packaging materials used showed that 43 rotogravure cylinders were required to print the old designs for four standard sheet sizes under each of three brands, whereas a simplified design motif could reduce the number to 15 cylinders as well as simplify inventory of the wraps required.

Once a complete analysis of the problems had been made, it was possible to establish the broad design objectives. For Springcale, Spring Knight and Sumter brands, the objectives are: (1) contemporary appearance, (2) design coordination, (3) use of stronger packaging material, (4) economy.

First step was the replacement of all border designs with a new "hourglass" motif. Not only does this rid Springs Mills packages of a Victorian look, but it provides a quickly identifying family symbol that is practical and economical of application to all fold sizes, thereby reducing substantially the number of different printed wraps required. And with the new design treatment more of the merchandise is visible—a feature retailers want.

Brand names are lettered in simpler, more legible styles and relocated so that they do not require a second look for recognition or recall.

Importance of informative copy was clearly defined in the market research. It is now positioned on both the face and side panels, planned not only for pleasing balance, but to make it easy for even untrained sales personnel to fill a customer's request or for the customer to make a selection, whether merchandise is stacked at eye level or face upward on the counter. This arrangement also aids retailers in receiving, marking and distributing merchandise.

All design elements—"hourglass," trademark and all copy—now remain in constant position on packages for all three brands to give greater impact and memory value at the point of sale.

Polyethylene film was selected as the material for the redesigned packages because of its toughness, which would reduce the number of broken packages and minimize soiled or unidentifiable merchandise.

To meet growing retailer preference of singly wrapped sheets for self-service operations, Springs Mills also decided to supply one-sheet packages instead of pairs—thus reducing unsalable merchandise caused by opening packages to sell one sheet.

These procedures imposed packaging production and cost problems that had to be overcome.

Design flexibility offered by the simplified hourglass treatment made the cost situation a lot brighter. This new design is more practical for printing on polyethylene film and eliminates many sizes.

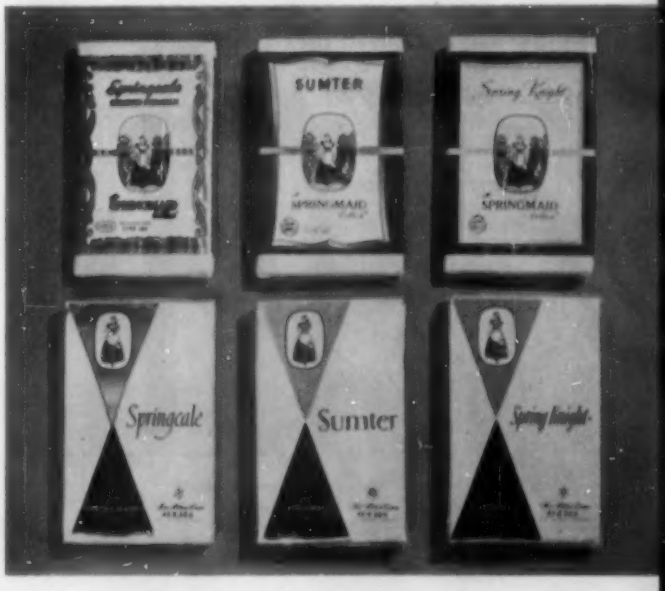
There are four standard sheet sizes under each of the brand names, excluding fitted sheets. In the old designs, a different-sized wrap was printed for each of the four sizes. With three different patterns, this meant that 12 wraps had to be printed.

Now only three wraps are needed, where 12 formerly were required. Unrestricted by a border, a single-size wrap of the new design will accommodate all fold sizes. This means a considerable reduction in inventory. And it reduces the rotogravure cylinders required for printing from 43 to 15, a reduction of 28 cylinders. If fitted sheets are included, it eliminates an additional 10 cylinders.

Packages for Springcale, Spring Knight and Sumter lines are but part of the over-all program.

Credits: *Design program by Royal Dadmun & Associates, Inc., 1118 N. Calvert St., Baltimore 2, Md. Polyethylene wraps printed by The Dobeckmun Co., 3301 Monroe Ave., Cleveland 13, Ohio, and Milprint, Inc., 4200 N. Holton St., Milwaukee, Wis., using Visking polyethylene film.*

Effectiveness of the new design is strikingly illustrated by a comparison of the old and new pillow-case packages. Retailers like the greater product visibility offered by the new design.



Packaging's value: $15 billion

New figures from the Department of Commerce give basis for estimate covering all packaging expenditures; comparison with prior years shows packaging gaining in ratio to gross product

The cost of packaging America's products in 1954 ran to more than $14 billion, and is today probably over $15 billion a year, making packaging, as an industry, among the largest in the country.

These are MODERN PACKAGING's own estimates, based on preliminary official figures of the 1954 Census of Manufactures supplemented by a special study made by the Containers & Packaging Div. of the Business & Defense Services Administration, U. S. Department of Commerce, results of which are being announced this month.

The Department of Commerce total of $8,009,990,000 for 1954 includes only the manufactured value of packages and components as shipped to packagers, omitting the considerable value added in the packaging plant by the cost of direct labor and overhead involved in assembling, filling, handling and shipping of packaged goods, as well as the packager's cost of design, testing, etc. The total of added costs in packagers' plants can only be estimated, but it is MODERN PACKAGING's opinion, based on several studies of its own, that this will average about three-quarters of the original cost of the package. On this basis, an unofficial grand total of the over-all value of packaging in 1954 would be in excess of $14 billion.

An over-all figure in that neighborhood is justifiable, in the opinion of the Department of Commerce's own packaging authorities. In an article on the report by his division in the current issue of the government's *Containers & Packaging* quarterly, A. B. Clunan, of the Containers & Packaging Div., says:

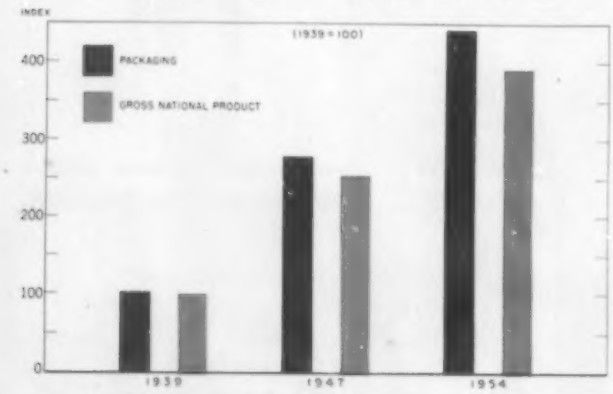
"The over-all value of packaging has been variously estimated recently in the trade press at from 12 to 15 billions of dollars. The figures provided in (our) report, which cover only the manufactured sales value of the major containers and packaging materials appear reasonably to substantiate these estimates."

Mr. Clunan points out further that although complete dollar sales figures for container products are not yet available for 1955 and 1956, the department's calculations indicate that there has been a further 5% increase in each of the years. That would bring the unofficial estimated figure for 1956 in the department's tabulation to $8,820,500,000, and by MODERN PACKAGING's reckoning the all-inclusive value of packaging for 1956 would be close to $15½ billion.

The Department of Commerce report compares container figures for the last three census years—1939, 1947 and 1954—with Gross National Product (the total of all goods and services produced) for the same years, and finds that packaging is gaining considerably faster than the economy in general. This appears to explode the long-accepted theory that packaging supply consistently maintains about the same ratio to the GNP.

Actually, Mr. Clunan points out, the increase in expenditures for packaging supplies during the 15-year period of 1939-54 was 341.2%, for an average gain of 22.7% per year, whereas the corresponding increase in GNP has been 292%, or an average of 19.5% per year. When expressed in dollars, for the items of supply covered in the department's tabulation, the average annual increase in packaging amounted to $412.9 million.

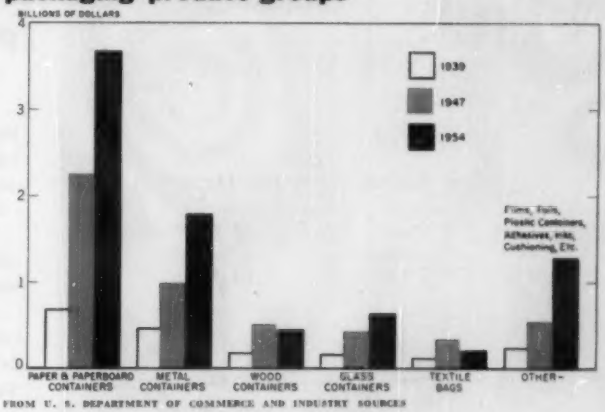
Comparative growth index packaging versus gross national product



FROM U. S. DEPARTMENT OF COMMERCE AND INDUSTRY SOURCES

If packaging could be considered as an industry (actually it is the combined product of many different industries), it is clear that it would rank near the top. In comparison with the combined Department of Commerce-MODERN PACKAGING estimate for the census year of 1954 of over $14 billion for packaging, government figures for the same year show sales of $8.3 billion for passenger automobiles, $8.7 billion for paper, $4.5 billion for rubber, $12.2 billion for textiles and $19.5 billion for chemicals. The entire sales of the advertising industry are [*Continued on page 212*]

Growth pattern for major packaging product groups



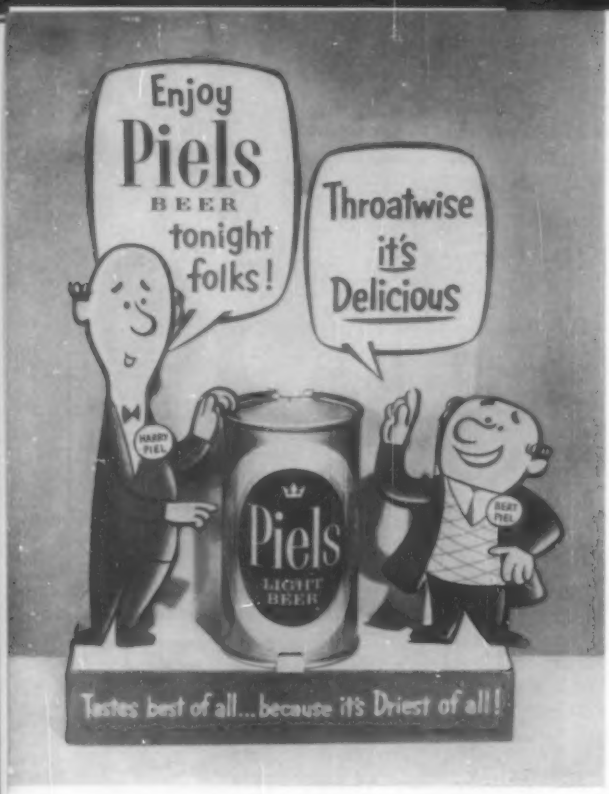
FROM U. S. DEPARTMENT OF COMMERCE AND INDUSTRY SOURCES

PACKAGING'S 341% GROWTH IN 15 YEARS, BY MAJOR PRODUCT GROUPS

	1939	*1947*	*1954 (Preliminary)*
Paper and Paper Board Containers			
Grocery and variety bags		$ 92,210,000	$ 159,708,000
Specialty bags	$ 96,571,000	92,569,000	203,908,000
Other bags		20,032,000	13,509,000
Paper shipping sacks		153,209,000	254,945,000
Solid fibre and corrugated shipping containers	213,523,000	833,858,000	1,259,313,000
Folding paper boxes	126,873,000	401,447,000	625,365,000
Set-up paper boxes	73,941,000	210,671,000	219,790,000
Other paperboard boxes	N.A.	1,510,000	5,693,000
Sanitary food containers	29,056,000	137,374,000	440,352,000
Paper caps, closures and lids	N.A.	20,136,000	23,092,000
Fibre cans and tubes	65,199,000	77,206,000	107,665,000
Fibre drums			40,989,000
Wrapping products—paper	75,000,000	206,000,000	312,000,000
	680,163,000	2,246,222,000	3,666,329,000
Metal Containers			
Metal cans	339,413,000	619,406,000	1,312,244,000
Steel shipping barrels and drums (over 12 gals.)	42,611,000	111,061,000	143,849,000
Steel shipping packages, kegs and pails (1-12 gals.)	10,966,000	35,604,000	54,769,000
Fluid milk shipping containers	N.A.	8,011,000	8,639,000
Steel and aluminum beer barrels	N.A.	24,880,000	2,618,000
Metal commercial closures		45,918,000	94,949,000
Metal home canning closures	48,000,000	11,942,000	17,673,000
Crowns (stamped)		60,429,000	78,443,000
Collapsible tubes (metal)	8,398,000	23,772,000	34,128,000
Compressed gas cylinders	13,000,000	39,276,000	29,573,000
	462,388,000	980,299,000	1,776,885,000
Wooden Containers			
Nailed wooden boxes (including combination wood and fibre boxes)		145,657,000	117,244,000
Wire bound boxes	126,019,000	72,859,000	90,578,000
Box shook (fruit, vegetable and industrial)		159,889,000	148,721,000
Fruit and vegetable baskets	15,224,000	31,741,000	31,602,000
Tight cooperage	34,569,000	68,360,000	41,424,000
Slack cooperage		30,453,000	15,310,000
	175,812,000	508,959,000	444,879,000
Glass Containers	156,365,000	422,963,000	628,916,000
Textile Bags	110,504,000	334,545,000	210,191,000
Other Containers and Packaging Materials (Estimated)*	230,400,000	540,300,000	1,282,790,000
Total for packaging supplies	$1,815,632,000	$5,033,288,000	$8,009,990,000
Unofficial MODERN PACKAGING estimate of added expenditures in packagers' plants, including contract packaging, consulting, package design, laboratory testing, research and engineering devoted to packaging, and the direct labor and overhead cost of assembling, filling, handling and shipping packaged goods.			$ 6,000,000,000
GRAND TOTAL			**$ 14,009,990,000**

*Including films; casings for meat; molded and formed plastic container; squeeze bottles; cellulose seals; aluminum foil (packaging); steel strapping and accessories; wire ties and bails; pressure sensitive tapes (packaging); gummed tapes (packaging); adhesives for packaging and paper converting; printing inks (packaging); molded pulp trays and containers; cushioning and packing materials; labels, seals and tags, etc.; ribbons, ties, flocking; cords, twine, rope; reels and spools; crocks, jars (ceramic); capsules and ampoules; aerosol valves; pallets and skids; packaging machinery.

Source: U.S. Department of Commerce, Industry and MODERN PACKAGING



Piel brothers in 3D

Bert and Harry, the comic cartoon characters created to boost the sale of Piels Beer through spot television commercials, are featured on a new three-dimensional, brightly colored counter display.

The new sign is another example of the increasingly popular practice of tying in the advertising theme with the product at point of purchase.

Designed to back up heavy promotion of the product on television, the display consists of cut-outs of the two figures flanking a reproduction of a can of Piels, with the advertising message contained in two background balloons.

Actually, the die-cut figures serve as a frame for a sample can of Piels Beer. "Enjoy Piels Beer tonight, folks!" says the taller figure labeled Harry Piel, while the short one, shown wearing a Bert Piel tag, says "Throatwise it's delicious." The slogan for Piels Beer appears on the base of the display: "Tastes best of all because it's driest of all." Point-of-purchase display will be used in retail outlets.

Credit: *Display by Lutz & Sheinkman, 421 Hudson St., New York.*

Display Gallery

White-gloved hands change typewriter ribbon

Five lithographed display pieces spotlight the new method of typewriter ribbon changing on Royal Portables. (See "Secretary's Friend," MODERN PACKAGING, Oct., 1956, p. 124.) Grouped under the heading, White Glove Promotion Kit, the point-of-sale material demonstrates the ease and cleanliness with which the typewriter ribbon, encased in Twin-Pak polystyrene cartridges, may be inserted in Royal's new portable. One large, die-cut display piece consists of a reproduction of the new typewriter to which white-gloved hand pieces are attached to give a third dimensional effect, made more realistic by use of an actual ribbon through slots in the display. Another piece consists of a card designed for insertion in the platen of an actual typewriter for demonstration purposes. Die-cut hand pieces also are designed to hold actual ribbon cartridges. Other pieces in the kit include: an ad reprint to which a hand piece has been added; a paper window streamer, and two small die-cut hand pieces with easels.

Credit: *Display pieces by Forbes Lithograph Mfg. Co., P. O. Box 513, Boston 2, Mass.*

Bras from a flower cart

A self-service rack made in the shape of an antique flower cart and containing brassieres in new individual cartons has been developed for retailers selling garments manufactured by H. W. Gossard Co.

The attractive rack, molded of polystyrene to resemble white-painted wrought iron, is designed to give impetus to self-service merchandising of the items by emphasizing convenience of handling, quick accessibility and easy selection of garment type.

The new cartons are imprinted with garment size, color, price and other information, eliminating time-consuming marking by the manufacturer. Attractively printed in three colors, the folding boxes can be stacked easily and can withstand handling without damage to the contents. They are of straight-tuck design with a perforated tear strip on the top tuck imprinted with size and style number of the garment for easy retailer re-ordering.

Credits: *Flower-cart rack made by Bernard-Edward Co., 5252 S. Kolmar St., Chicago. Cartons by Container Corp. of America, 38 S. Dearborn St., Chicago 3.*

Display Gallery

Flasher for brushes

A snow-encrusted, flashing lantern of old-fashioned design draws the gift shopper's attention to the graduated counter display designed for Jewelite Brushes manufactured by the Jewelite Div. of the Pro-Phy-Lac-Tic Brush Co.

Nine models of the gift-boxed brushes are compactly exhibited on three separate levels to assure a prominent position for each item.

Illustrations of cavorting elves contribute a jovial touch to the display. Each elf is depicted as holding a card showing the price of one of the brush models and a suggested recipient—"for mother," "for dad," "for sister," etc.

Topping the full-color display is a snow-covered sign emblazoned with the product slogan: "Jewelite, the gift that's always right."

Use of graduated construction for the display, aside from the prominent position it guarantees each brush, provides for full utilization of limited counter space with an impressive mass display effect.

Credit: *Display by Consolidated Lithographing Corp., Carle Place P. O., Long Island, N. Y.*

OWENS-ILLINOIS ASSURES YOU A

Co-ordinated Research

Pure research into formulae and fabrication of glass, *packaging research* into processing and handling methods in customer plants, and *market research* into consumer attitudes, add up to greater specific value for your packaging dollar.

Engineered Design

The package that takes your product to market must take *three* needs into account. Considerations of its function in the retail store, its operating efficiency and its consumer utility all become a part of the prescription for an Owens-Illinois package.

The Right Container

Versatility of facilities enables Owens-Illinois to supply containers to meet special needs: Duraglas containers for almost any item; Libbey Safedge packing tumblers or premiums; Kimble Ampuls and Vials; and a variety of Owens-Illinois plastic containers.

A Good Package sells

Duraglas jars for instant coffee are available in all sizes

COMPLETE PACKAGING APPROACH

The Right Closure

Tamperproof inner Tacseal, moisture-proof liner, colorful lithographed closure—Owens-Illinois' know-how can help you choose the *right* combination. Expert counsel in selection is one more help available in the complete O-I packaging service.

Needed Fitments

With emphasis on the word "needed," Owens-Illinois specialists are keenly aware of sales benefits possible through use of plastic shaker and pour-out fitments which are not "gadgets" but which increase consumer satisfaction with your product.

Merchandising Cartons

Modern cartons are developed only through systematic consideration of their opportunity to serve you in the retail store and retail warehouse as well as on your own filling line and in transit. Owens-Illinois is pioneering such developments.

to the very last spoonful

Owens-Illinois engineered containers keep "instants" at peak of flavor and appeal

Duraglas packages for Instant Coffee are a typical product of Owens-Illinois engineering and research—geared to match the convenience of this great new product.

The colorfully lithographed closures for these packages strengthen your brand identification and sell from lower shelf positions. The Tacseal inner liner provides a tamper-proof seal. Once opened, the jar can be resealed tightly after every use to protect the fresh, delicate aroma to the last spoonful.

Look to Owens-Illinois as a marketing-minded supplier for complete glass packaging service; Duraglas containers; sturdy cartons imprinted with your selling message; metal closures with Tacseal tamperproof inner liners; effective label and closure designs. Call our local branch office now. They are ready to serve you and will welcome your call.

DURAGLAS CONTAINERS
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

Header first

Newell's film bag for drapery hardware is automatically formed and filled on a machine that applies the saddle label first, then fills contents from the bottom

Quality appearance and uniformity impossible with hand sealing are achieved with machine which feeds film and thermoplastic label in continuous webs, cuts, forms, seals and punches header label, then fills and seals bag from bottom.

A pre-applied, printed saddle label and "upside-down" filling of film bags on an automatic machine are the innovations that have doubled the packaging-line output per operator for six drapery hardware products of the Western Newell Mfg. Co., Freeport, Ill.

Newell had already developed an efficient packaging system and effective packages for its thousands of self-service outlets in variety stores. Smaller items like cafe and drapery rings, traverse cord, traverse carriers, cafe rod brackets, window-shade brackets, pleater hooks and drapery hooks were packaged in varying sizes of polyethylene bags to which top saddle labels, printed on both sides, were applied. These flexible packages could be merchandised on counter displays, revolving wire racks or hang-up pegboards.

The heat-sealing and hang-up hole-punching equipment was designed mainly by Newell's production department. Bags first had to be hand packed (requiring space for each packer's supplies) and then the saddle labels had to be individually applied in semi-automatic operations. The system had certain advantages, including the ability to handle varying bag sizes on the heat sealer.

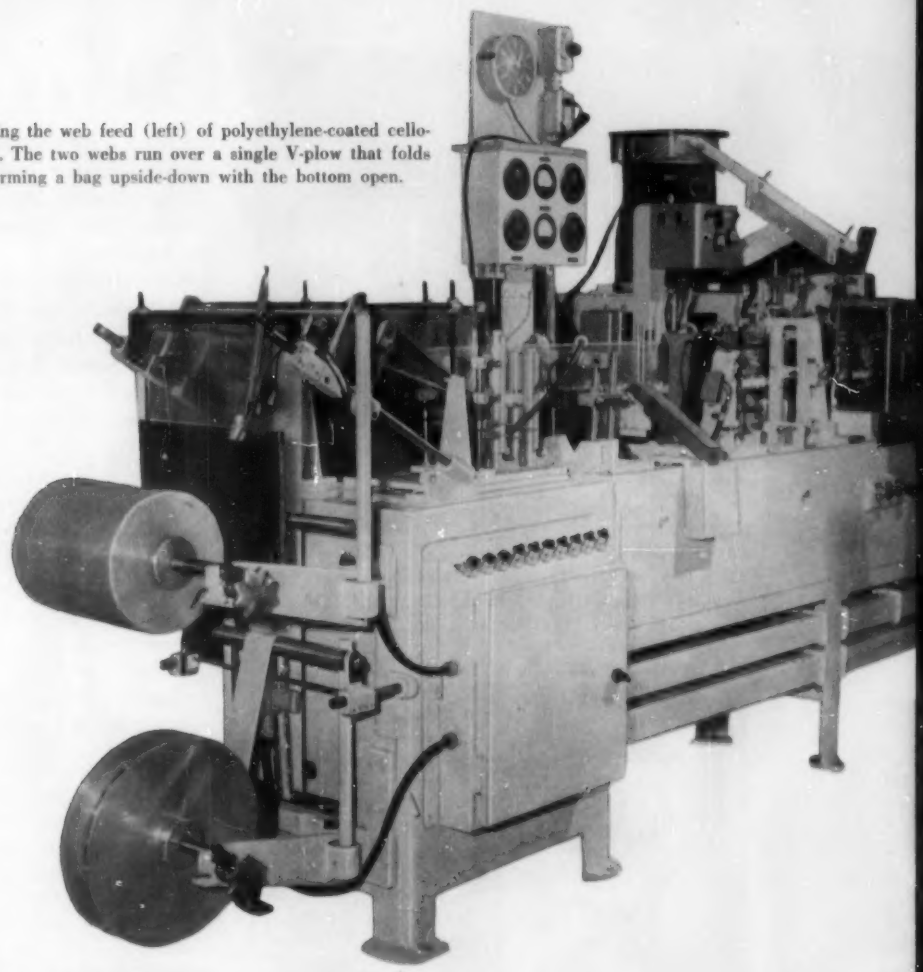
But Newell also ran into problems. With hands feeding the bag it was difficult to get perfect alignment. Some labels would be on crooked. Also, the labels had to extend beyond the edges of the bag and could not be sealed along 1/4 in. of the lower edge in order to avoid hitting the polyethylene with the heat bar. Most important, a more automatic way had to be found to increase production and reduce costs.

When the demand for self-service polyethylene bags turned many industries to this type of packaging, many poor-looking packages went on the market. To protect its "Newell decorator quality" reputation, the company started seeking new packaging methods that would offer a solution to this problem. Any new system had to produce a bag that would look like the saddle-type label bags then in use and be attractive.

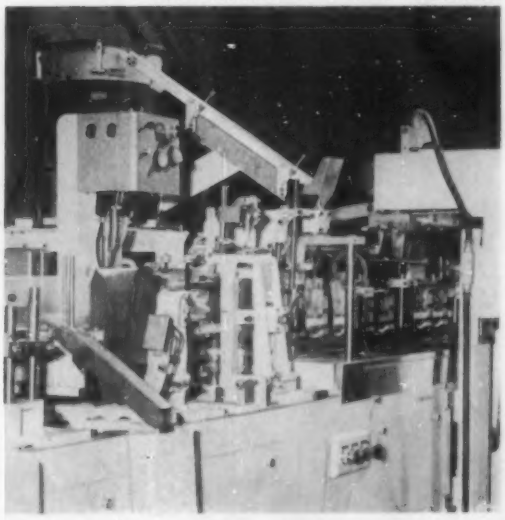
Working closely with an equipment manufacturer's design engineers, Newell obtained a horizontal-type, central-cycle, shaft-driven machine that: (1) applies a top saddle, (2) heat seals the top of the bag, (3) punches a hang-up hole in the label, (4) forms and fills the bag with six (or more) pieces and (5) seals the bottom of the bag.

The new unit forms the bag and top saddle from two webs that are fed into the line simultaneously. One web is polyethylene-coated cellophane; the second web is the label, which is treated for heat sealing on the unprinted side. The two webs are fed into the machine with the label web lying under-

Over-all view of machine, showing the web feed (left) of polyethylene-coated cellophane (above) and label (below). The two webs run over a single V-plow that folds the film and the label together, forming a bag upside-down with the bottom open.



PHOTOS THIS PAGE COURTESY BARTELT ENGINEERING CO.



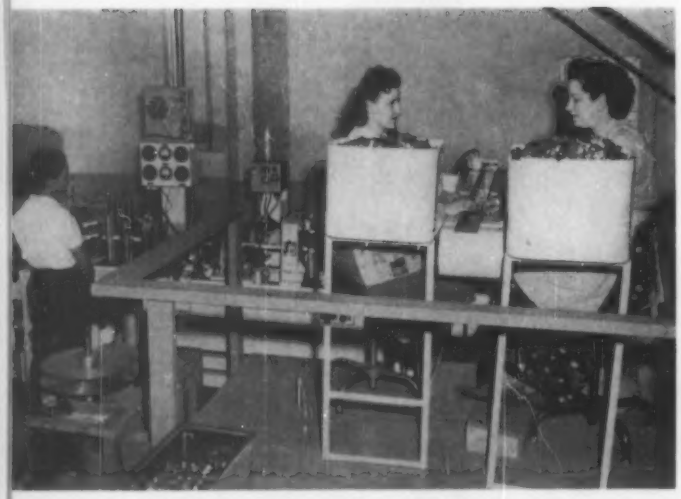
Close-up of bag forming and filling section shows the chute (left, below) for disposal of hole-punch waste; chute and duckbill (upper center) leading from the vibratory feeder for nails, and the stages of opening and filling upside-down bags as they move around the machine to the right.

neath the film web as the webs go over a V-plow. A "bottom" serrated heat seal is formed which in this case is really the top seal upside down. A hole is punched in the center of the label, sides are heat sealed and vertical cuts are made. At this point the saddle label and film are heat sealed together in register to form a secure top seal. These "upside-down" bags are fed to filling stations.

The bags are filled and the bottom seal (at the top on the filling line) is made. Coming off the line are uniform bags with saddle labels applied in perfect alignment across the top. The bags have a quality, machine-made appearance.

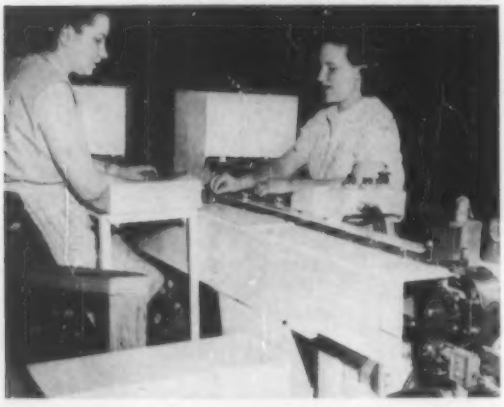
On the present line there are two filling stations. At the first station a vibratory hopper feeds nails into a chute and these are dropped into the bag four at a time through a duckbill after the bag has been opened by air injection and side suction fingers. At the second station a cup conveyor dumps a right and left rod bracket into a duckbill, which drops them into the bag.

The cup conveyor is filled by two operators, one



On a platform above the filling end of machine, two girls place brackets in the cups of continuous conveyor leading to final bag-filling station.

PHOTOS THIS PAGE COURTESY BARTELT ENGINEERING CO.



Another view, from machine end of the brackets conveyor, shows cut-off switch, next to operator at right, which can stop and start the entire line. Note how brackets spill from bottom of storage bins behind operators.

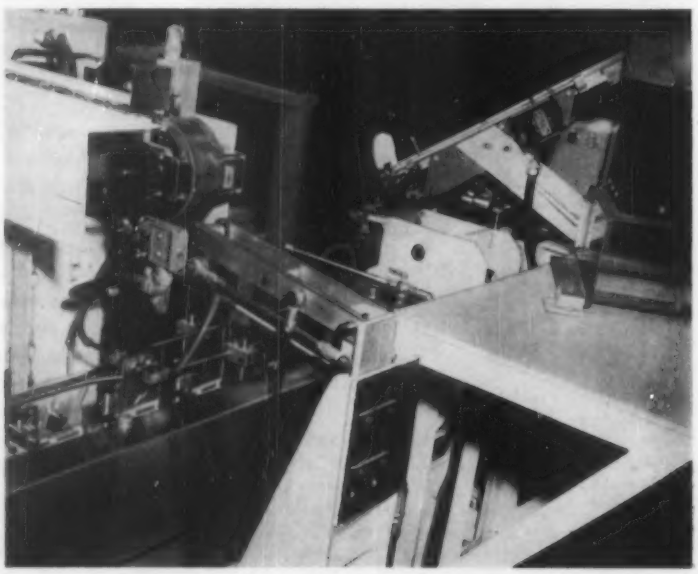
placing a right-hand bracket in each cup, the other feeding left-hand brackets. The cups are designed so that they can handle a variety of different types of drapery hardware products in addition to the cafe rod brackets.

The line is equipped with switches to stop operations if a web runs out or if a bag fails to be fed to the filling stations. Newell also has added another piece of simple but useful equipment to record down time: an electric clock that runs when the line stops (normally scheduled breaks, of course, are not recorded).

The new line has saved space that would be needed for similar production under the former system and it has doubled the production per girl. For the first time, this type of bag comes off the production line formed, filled and sealed within only 30 seconds after the raw materials have been fed into the machine.

Newell is planning to maintain its previous bag-packaging method for packing schedules that do not warrant machine filling and as an emergency production safeguard.

Credits: *Bags made, filled and sealed on machine by Bartelt Engineering Co., 1900 Harrison Ave., Rockford, Ill., incorporating attachments and parts by Brown Bag Filling Machine Co., Inc., Fitchburg, Mass.; Syntron Co., Homer City, Pa.; Electronic Machine Parts, Inc., 204 Lafayette St., New York 1, and Industrial Electronics Co., Hanover, Mass. Polyethylene-coated cellophane by The Dobeckmun Co., P.O. Box 6417, Cleveland 1. Saddle labels by Ever Ready Label Corp., 357 Cortlandt St., Belleville 9, N. J.*



View from rear of machine shows discharge end of cup conveyor (left) dropping two brackets in each bag, chute from vibratory feeder (right) to count and fill four nails.

another prestige product packaged by BURT

Suave . . .
the world's most popular
woman's hairdressing

Folding carton manufactured for Helene Curtis, Chicago

F. N. Burt Company, Inc.
Manufacturers of Small Set-up Boxes,
Folding Cartons and Transparent Containers.
500-540 Seneca Street, Buffalo 4, New York.
Offices in Principal Cities Or Write Direct.
Canadian Division: Dominion Paper Box Co., Ltd.
469-483 King St. W., Toronto, Canada.

Slide-track thermoform

A new high-speed method of edge forming gives Carvel Hall a sturdy cutlery package with acetate cover and slide-out paperboard base for quick loading, easy inspection

Neat, tailored look steps up appearance of completed package (left). Knife fits in contoured acetate and is held securely in place when the backer card is slid along tracks on each side.

New "sliding tracks" on thermoformed acetate and paperboard packages adopted by Charles D. Briddell, Inc., Crisfield, Md., for Carvel Hall Kitchen Cutlery are indicative of the mechanical refinements available today in this popular form of transparent display packaging. The benefits in this case are improved appearance at lower cost and greater facility in loading and reclosing.

The thermoformed cover is contoured to the object being packaged and tracks are formed along each side to permit sliding the edges of a paperboard base inside the tracks, thereby securing the object in the package between the plastic and the paperboard. The completed package has a neat, tailored look that takes full advantage of the inherent transparent beauty of the acetate.

No sealing, stapling or gluing is required. The base card slides back and forth for customer examination of the product if desired.

The side of the card facing the plastic provides a place for printing trade name, product identification, price or any other desired selling information so that such data shows through the transparent thermoformed top. The reverse side of the card may be printed to carry additional product information and selling messages on the back of the package.

The concept of the Carvel Hall packages is not entirely new. A few packages of this type have been produced with a track previously, but they have always been made by a bending operation which is slow and expensive.

By a new mechanical method, the track is formed in one continuous automatic process, following the product-contour forming operation. This automatic step produces the plastic section at high speed and thus economically, according to the supplier.

These new "track" packages are strong and sturdy, due to the rigidity of the paperboard held in the tracks. A hole punched in the top of each package provides for hang-up display. So far they have been used for individual items, although they could be made to package sets as well.

Packages incorporating the same principle are already being developed for such diversified products as handkerchiefs, socks, cosmetics and medicinal items.

Credits: *"Slideplax" packages by Plaxall, Inc., 5-26 46 Ave., Long Island City, N.Y., using acetate by Celanese Corp. of America, 290 Ferry St., Newark 5, N.J.*

Door catch is kept untarnished and held tightly in place by snug skin of KRENE Cast Vinyl Film.

How 4 types of packaging
with BAKELITE Brand Plastics

Keep Products Safe and Saleable

Clear, strong, and sparkling, KRENE Cast Vinyl Film does a three-way job for "skin packaging." It enhances both product and display card, holds the product firmly in position, and protects against handling, soiling, and moisture. If "skin packaging" is a better way to package *your* product, KRENE Cast Vinyl Film is the perfect material for doing the job.

(continued on next page)

Safe and Saleable

(continued from preceding page)

In polyethylene bags, "wiener sales up 50%"

. . . according to Schwartzman's Packing Company, New Mexico's largest sausage packing plant, at Albuquerque. Quoting Colombo Nasci, general sales manager:

"By putting out a three-pound package in polyethylene, we were able to lower prices and also cut our cost of production. The idea was a budget-size or family-size pack, sold at an attractive price. Believe me, it clicked. Sales jumped up tremendously. Clarity of the package is a big factor. So is its greater flexibility. And, we're saving money on the bags . . . getting a bigger package for basically the same price as our old one-pound package."

This polyethylene color-printed bag is supplied by Modern Packaging Co., Los Angeles, Calif.

Polyethylene-coated packages are supplied by Dobeckmun Company, Cleveland, Ohio.

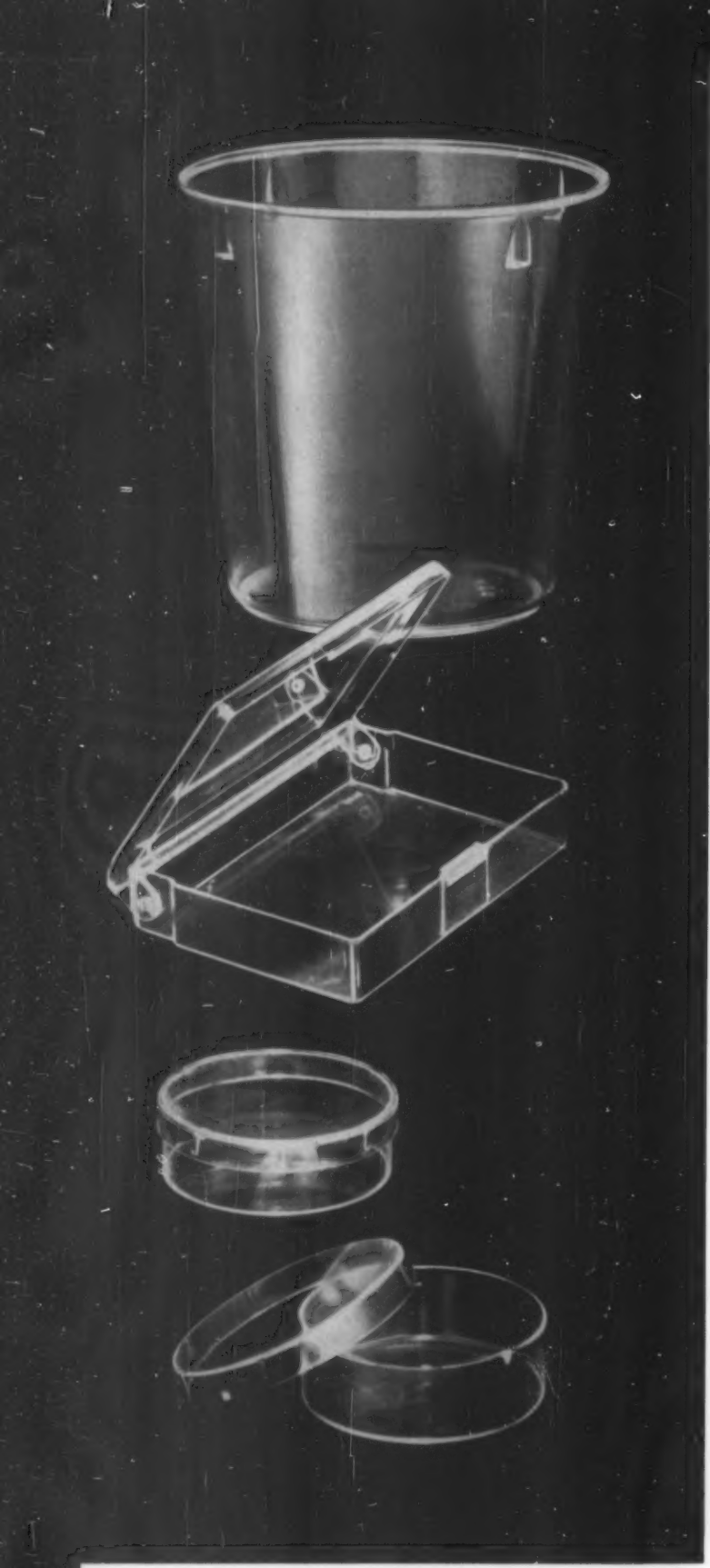
Polyethylene-coated foil "seals off unpleasant odors"

"Fly Bits" made by Black Panther Company, Sanford, N. C., have malathion as their active ingredient. Effectiveness is high, but the odor when concentrated in a small area is disagreeably strong. Store owners and customers objected to the smell seeping through ordinary bags.

By lining a paper bag with polyethylene-coated foil, the problem was solved. Besides good heat-sealing properties, the polyethylene resists most chemicals. It is widely used—as coating, film, and drum or carton lining—in the chemical industry.

Ask your supplier about . . .

BAKELITE BRAND PLASTICS



Safe and Saleable

(continued from preceding page)

New low-cost packaging in high-transparency styrene

In the molding process, the free-flowing qualities of BAKELITE Brand Styrene SMD-3500 permit faster molding cycles. Result: increased production for the plastics molder, lower costs for package users. This brings the benefits of deluxe packaging within reach of a host of products, and yours may be among them. You'll find packages molded from BAKELITE Styrene SMD-3500 characterized by rigid, cleanly molded walls, crystal clarity that displays and enhances contents, and reusability features that appeal to the consumer. Ask your packaging supplier about the other plus-factors this material can bring to your package.

Don't miss out on any of the benefits that packaging with BAKELITE *Brand Plastics can bring to your product. Talk to your packaging supplier, and write for a copy of our 1956 "Guide to Improved Packaging" to Dept. WB-105.*

First in the world of plastics . . .

BAKELITE
BRAND
PLASTICS

BAKELITE COMPANY, *A Division of Union Carbide and Carbon Corporation* UCC 30 East 42nd Street, New York 17, N. Y.

The terms BAKELITE, KRENE, and the Trefoil Symbol are registered trade-marks of UCC.

Brand identification and product information are presented on wrap-around label. Label covers only bottom half of container to reveal colorful copper, silver and white decoration, free of trade data for re-use.

Double beading aids in winding tear strip neatly and tightly around opener key.

Double life

Lusk's key-opening can for maximum protection of candies has strip-off label and polyethylene cover that makes it a permanently useful canister in the home

With label removed, decorative copy-free canister is ready for many re-use purposes. Metal lid is replaced with polyethylene lid supplied as part of the package.

The dual-purpose canister can, already a marketing success for special promotions in the shortening industry, is moving into another food field with the introduction of a gift canister for Thinshell All-Filled Candies, manufactured by the Lusk Candy Co. of Davenport, Iowa.

Lusk's metal canister holds 2¾ lbs. of candies and comes with a cream-colored, molded-polyethylene lid which is seated on top of the can. After removing this plastic cover, the user completely removes the can's metal lid in the usual way by a key that unwinds a double-beaded tear strip. The consumer may use the metal or plastic lid as the cover until the candy is eaten. Afterwards the can begins its second life—that of a decorated re-use canister. The customer throws the metal lid away, puts on the polyethylene top and tears off the paper wrap-around label to reveal an attractively printed can free of trademarks or advertising.

Lusk went to this double-use container for two reasons. First, the company wanted an airtight package to keep the hard candy fresh and moisture free. Second, in keeping with today's continuing expansion of re-use packaging, the company also sought a container that might have a secondary purpose.

The canister offers many advantages. The candy is hermetically sealed. The can offers shipping economy due to light weight. Its extra cost is considered worthwhile because of its re-use appeal.

Success of the canister has prompted the company to consider using it with new designs for other candies. This combination can and polyethylene top suggests possibilities for packaging food and allied products.

Credits: *Lid by Artag Plastics Corp., 2853 W. Irving Pk., Chicago. Label by U. S. Printing & Lithographing Co., 340 Beech St., Cincinnati. Can design by Charles J. Lehr, 7017 N. Wolcott, Chicago.*

controlled packaging*

When this well known manufacturer developed this now famous sun tan product, he looked to the FLUID CHEMICAL COMPANY for his aerosol packaging.

Here at FLUID, we have the technical "know-how," the latest automation machinery, and efficient materials handling equipment to produce on time deliveries - - - all part of the every day "*Controlled Packaging" by FLUID.

As we manufacture no products of our own, you are always assured the personal attention and service which your brands deserve.

For your contract packaging needs, write or phone FLUID *today.*

"First in Contract Packaging"

FLUID

CHEMICAL COMPANY INC.

883 MT. PROSPECT AVE. • NEWARK, N. J.

TELEPHONE HUmboldt 5-2880

PRODUCTS: AEROSOLS—GLASS AND METAL

LIQUID—TUBE—JAR—DRY PACK FILLING

RESEARCH DEVELOPMENT

FOUNDED 1921

Radiotracer studies of PVA—1

First of two reports on polyvinyl alcohol in packaging applications shows that the polymer is not significantly solvent in edible fats and oils of low water content

By H. K. Inskip and J. H. Peterson†*

High tensile strength, low oxygen permeability and other physical properties of polyvinyl alcohol indicate that it may be of value in the preparation of greaseproof paper food wrappers for such items as nuts, meats, vegetable shortenings and baked goods.

As a means of determining whether polyvinyl alcohol would be extracted from such impregnated papers, we have recently prepared samples of both high- and low-viscosity polyvinyl alcohol labeled in the polymer chain with carbon-14, the long-lived radioisotope of carbon. Films prepared from this material were placed in contact with typical edible oils under conditions representative of those which might prevail during the storage of packaged food and the recovered oils were analyzed for dissolved polyvinyl alcohol.

Experimental: materials

The fats and oils tested were cottonseed oil, peanut oil, butter and "Vreamay" vegetable shortening (Swift & Co.). To determine whether small amounts of polyvinyl alcohol ingested accidentally would be harmful, aqueous solutions of labeled polyvinyl alcohol were fed to rats and the vital organs and body wastes were assayed.

Vinyl acetate. A 9-gm. sample of vinyl acetate containing 11.2 millicuries of carbon-14 in the vinyl group was obtained from Tracerlab, Inc., Boston, Mass. This was diluted with 2.0 gm. of highly pure unlabeled monomer and the mixture was fractioned through a 1-ft. column packed with nickel screens. The forerun (1.5 gm.) boiling in the range 67-71 deg. C. was discarded and the main fraction (7.8 gm.) boiling in the range 71-72 deg. C. was collected. Four grams of unlabeled monomer were added to the distillation flask and an additional 4.3 gm. of material boiling in the range of 71.5-72 deg. C. were collected. The two fractions were combined and diluted to a total of 14 gm. with unlabeled monomer for use in polymerizations.

Polyvinyl acetate, low viscosity. A mixture of 6.1 gm. of labeled vinyl acetate, 6.7 gm. of freshly distilled methanol and 1.0 ml. of catalyst solution[1] was heated at the reflux temperature under nitrogen and with agitation in an all-glass vessel for 2 hrs., 40 min. An additional 0.6 ml. of the catalyst solution was added in small aliquots during the reaction to maintain the desired rate of polymerization. One-tenth gram of hydroquinone was then added and the residual monomer was removed by co-distillation with methanol.

Polyvinyl acetate, high viscosity. In a similar

* Electrochemicals Dept. and † Chemical Dept., E. I. du Pont de Nemours & Co., Inc., Niagara Falls, N.Y., and Wilmington, Del., respectively. This is Contribution No. 377.

[1] Prepared by mixing a saturated aqueous solution of sodium perborate with an equal volume of vinyl acetate at 0 deg. C., then recovering and drying the organic layer.

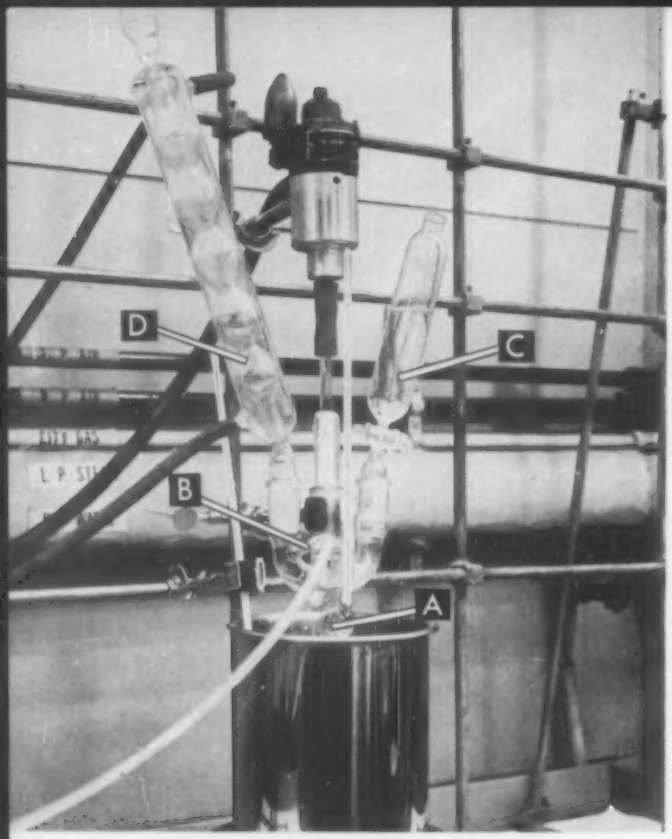


Fig. 1. Small-scale polymerization apparatus, showing (A) vinyl acetate, methanol and polymerization initiator; (B) nitrogen inlet; (C) methanol, used to remove residual monomer by co-distillation; (D) reflux condenser to be replaced by distillation head during monomer removal.

manner 7.9 gm. of labeled vinyl acetate, 5.1 gm. of freshly distilled methyl acetate and 0.4 ml. of catalyst solution were heated at the reflux temperature for 1 hr., 20 min. Polymerization was stopped with hydroquinone and monomer was removed as described above.

Polyvinyl alcohol. A small aliquot of each polyvinyl acetate solution was removed and the balance was diluted to a volume of 40 ml. with methanol. The solution was heated to the reflux temperature and 3 ml. of a 5% solution of sodium methylate in methanol was added. The slurry of polyvinyl alcohol which formed was heated with agitation for 20 min. and the polymer was collected in a Buchner funnel. It was washed several times with methanol, then dried under an infrared lamp. Viscosities of 4% aqueous solutions of the two polyvinyl alcohol samples were 6 and 64 cp., respectively.

Films were cast on glass plates from 10% aqueous solutions of the two samples. They were air dried for approximately 16 hrs., then dried in a circulating oven at 80 deg. C. for 3 hrs.

Exposure of films to edible fats and oils. Films stripped from the glass plates were cut into strips approximately 4 sq. in. in area. In tests carried out at 131 deg. F. (55 deg. C.), at which temperature all fats tested were liquids, the films were placed in test tubes (1 in. diameter) and covered with approximately 20 ml. of the designated fat or oil. The test tube was then suspended in a constant-temperature bath held at 131 deg. F. for 4 hrs., following which the oil was removed and stored in

Table I: Solubility of polyvinyl alcohol in fats and oils

Oil or fat	*Test conditions Temp. (°F.)*	*Time (days)*	*Concentration of PVA in recovered oil*
	Low-viscosity polyvinyl alcohol		
Cottonseed oil	131	0.167	Less than 1 p.p.m.
Cottonseed oil	77	21	Less than 1 p.p.m.
Cottonseed oil	35–40	83	Less than 1 p.p.m.
"Vreamay"	131	0.167	Less than 1 p.p.m.
"Vreamay"	77	21	Less than 1 p.p.m.
"Vreamay"	35–40	83	Variable, ranging from 1.9 to 4.3 p.p.m.
"Vreamay" (After melting and centrifuging)	35–40	83	Less than 1 p.p.m.
Butter	131	0.167	Water extract, 240 p.p.m. on butter. Fat, 7-8 p.p.m.
Butter	100	0.25	Water extract, 52 p.p.m. on butter. Fat, less than 1 p.p.m.
Butter	77	21	Water extract, less than 0.2 p.p.m. on butter. Fat, less than 1 p.p.m.
Butter	35–40	83	Water extract, ca. 0.1 p.p.m. on butter. Fat, less than 1 p.p.m.
Peanut oil	131	0.167	Less than 1 p.p.m.
	High-viscosity polyvinyl alcohol		
Cottonseed oil	131	0.167	Less than 1 p.p.m.
Cottonseed oil	77	21	Less than 1 p.p.m.
Cottonseed oil	35–40	83	Less than 1 p.p.m.
"Vreamay"	131	0.167	Less than 1 p.p.m.
"Vreamay"	77	21	Less than 1 p.p.m.
"Vreamay"	35–40	83	Less than 1 p.p.m.
Butter	131	0.167	Water extract, 13 p.p.m. on butter. Fat, less than 1 p.p.m.
Butter	100	0.25	Water extract, 2.7 p.p.m. on butter. Fat, less than 1 p.p.m.
Butter	77	21	Less than 1 p.p.m.
Butter	35–40	83	Less than 1 p.p.m.
Peanut oil	131	0.167	Less than 1 p.p.m.

a stoppered bottle. The test carried out with butter at 100 deg. F. (37.8 deg. C.) was performed in a similar manner with an exposure time of 6 hrs.

In tests carried out at 35-40 deg. F. (2-5 deg. C.) and 77 deg. F. (25 deg. C.), at which temperatures the vegetable shortening and butter were solids, the films were placed in wide-mouthed jars (2½-in. diameter) and covered with about 20 ml. of the designated fat or oil. Butter and shortening were softened to assure good contact by heating them briefly with an infrared lamp. The jars were capped and placed in constant-temperature rooms (77 deg. F. for 21 days and 35-40 deg. F. for 83 days). At the end of this period the oils were separated from the films and placed in stoppered bottles.

Animal feeding tests. Solutions of 100 mg. of labeled polyvinyl alcohol (high and low viscosity) in 2 ml. of water were administered to rats by stomach tube and the rats were kept in metabolism cages for 24 hrs. At the end of this period the animals were sacrificed and their vital organs and excrement were carefully segregated and frozen. Urine spots on the filter paper at the bottom of the cages were assayed at that time.

Assay procedure. A sample of the exposed fat or oil was placed on a 2-cm.-diameter disk of lens tissue mounted on a flat copper planchet. The sample was warmed sufficiently to give a uniform distribution over the whole lens tissue. The amount of oil or fat per sample was usually between 18 and 30 mg. The activity per unit of polyvinyl acetate (polyvinyl alcohol precursor) was determined by measuring the activity of dibutyl phthalate solutions of the polyvinyl acetates under the same conditions used for the fats and oils. At a total sample weight of 20 mg. of solution the activity was equivalent to 440 c./min./microgram (μg.) of high-viscosity polyvinyl alcohol and 400 c./min./μg. of the low-viscosity polymer. The background of the internal sample counter used was about 29 c./min. A count of 5/min. above background can be considered definitely significant, thereby giving a sensitivity of at least 1 p.p.m. by direct measurement of oil samples.

The recovered butter samples were not homogeneous and to facilitate assaying additional water was added with heating and stirring. The mixtures were centrifuged while still hot and aliquots of both the water and the oil phases were collected.

For assaying purposes the feces were dried at 100 deg. C. and dry ground in a Wiley mill. An aliquot of the dry powder was then wet ground with glass beads in a glass jar to give a slurry from which the final assay samples were made. The whole gastrointestinal tract was homogenized with the addition of water in a Waring Blendor equipped with a special small stainless steel metal head. Assay samples were prepared from this suspension. The other rat organs were treated in the same fashion.

Water extracts of butter, dispersions of the feces and the dispersions of the homogenized rat organs were deposited on 2-cm.-diameter lens tissue. The controls for these samples were made by evaporating known amounts of water solutions of the polyvinyl alcohols on lens-tissue disks cemented to copper planchets. At a total sample weight of 4.5 mg., the activity level of the high-viscosity polyvinyl alcohol was 1277 c./min./μg. and the low-viscosity 1164 c./min./μg. Values at intermediate sample weights were also obtained from which calibration curves were prepared and used for making self-absorption corrections. In the assay of the water extracts of the butter samples, much higher sensitivity was obtained than by direct measurement on

Fig. 2. Some conventional equipment which is used in radioisotope experimentation: (A) a proportional windowless flow counter; (B) an Autosealer; (C) a line voltage regulator; and (D) a laboratory monitor.

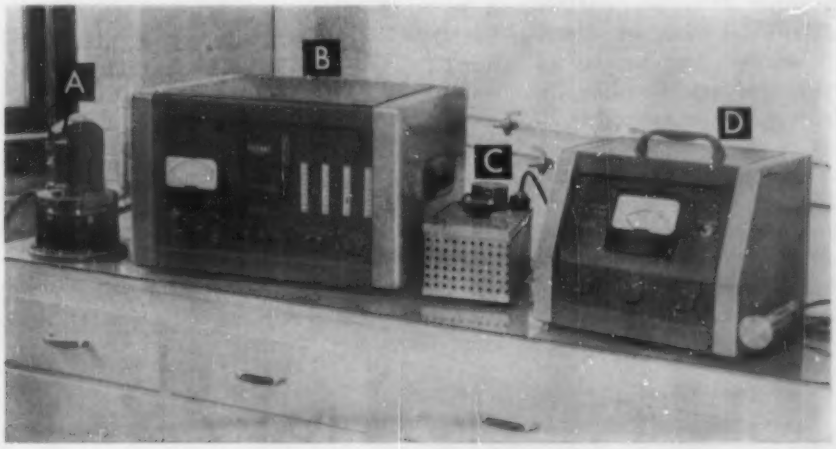


Table II: Activity of various organs of rats fed radioactive polyvinyl alcohol

(Assays made on aliquots of homogenized samples)

Organ	*Indicated total polyvinyl alcohol content*
Low-viscosity polyvinyl alcohol, Rat No. I	
Brain	No detectable activity
Kidney	Trace of activity, about 0.8 μg.
Liver	7.2, 3.9, 3.6 μg.
High-viscosity polyvinyl alcohol, Rat No. II	
Brain	No detectable activity
Kidney	No detectable activity
Liver	Trace of activity, 0.8-0.9 μg.

the fat because of the higher activity per unit weight and also because a sample representing a larger amount of butter could be assayed. The sensitivity of the measurements was equivalent to about 0.1 p.p.m. on the whole butter sample.

Discussion

The amounts of high- and low-viscosity polyvinyl alcohols extracted from the films by the various oils examined are given in Table I. It is readily apparent that those oils containing relatively little water—cottonseed oil, peanut oil and "Vreamay" shortening—show little or no tendency to dissolve polyvinyl alcohol.

The sample of "Vreamay" exposed to low-viscosity polyvinyl alcohol at 35-40 deg. F. for 83 days was slightly active. This sample may have become contaminated by moisture, or a small amount of polyvinyl alcohol may have been introduced mechanically during the recovery of the fat. When the product was melted and centrifuged it became inactive. Samples of "Vreamay" contacted with polyvinyl alcohol at higher temperatures were essentially inactive.

The data also indicate that a fat containing a significant amount of water, in this case butter, will extract a small amount of polyvinyl alcohol from films at elevated temperatures. At two temperatures employed in this study at which butter was liquid (100 and 131 deg. F.), relatively large amounts of low-viscosity polyvinyl alcohol were found in the recovered samples. However, samples exposed at 77 deg. F. contained very little polymer. When films of high viscosity polyvinyl alcohol were used, only the sample exposed at 131 deg. F. was significantly active. This is in agreement with the observation that low-viscosity polyvinyl alcohol dissolves in water at a more rapid rate than high-viscosity polymer under comparable conditions.

Data obtained in the feeding experiments are summarized in Table II. Rat No. I was given 100 mg. of low-viscosity polyvinyl alcohol in 2 ml. of water by stomach tube, while a solution of 100 mg. of high-viscosity polyvinyl alcohol was administered in a similar manner to Rat No. II. Radio assays of the homogenized organs and feces of Rat No. I indicated that about 77% of the polymer was in the feces and about 23% remained in the gastrointestinal tract after 24 hrs. For Rat No. II about 20% of the activity was found in the feces and about 80% remained in the gastrointestinal tract. Aliquots of the samples assayed were such that less than 1 μg. of polyvinyl alcohol in the total organ was capable of being detected.

When the final assays were run, urine spots on filter paper were found to be active. It is believed that this activity resulted from slight staining by the highly active feces. No activity was detected with a Geiger counter in urine stains where the paper had not come in contact with feces. No detectable activity was found in the brain of either rat. A trace of activity which corresponded to no more than 0.8 μg. of low-viscosity polyvinyl alcohol in the total organ was found in the kidney of Rat No. I. The kidney of Rat No. II was inactive. A maximum of 7.2 μg. of low-viscosity polyvinyl alcohol (0.0072% of dose) was found in the entire liver of Rat No. I, while only 0.8 to 0.9 μg. of high-viscosity polyvinyl alcohol was found in the liver of Rat No. II.

Summary

Polyvinyl alcohol labeled with carbon-14 was exposed to typical edible fats and oils under conditions representative of those under which packaged foods might be kept. The oils were then recovered and assayed. Those containing only a negligible amount of water did not extract significant amounts of the polymer from the films. Butter, which separated into an aqueous and a nonaqueous phase at elevated temperatures, did dissolve a small amount of polyvinyl alcohol.

On the basis of the data presented above, the Federal Food & Drug Administration has stated that it has no adverse comment to offer concerning the use of polyvinyl alcohol as a component of wrappers for fatty foodstuffs such as butter, lard, shortening, oleomargarine, bacon, nuts and doughnuts.

Acknowledgment

The authors are indebted to Dr. John A. Zapp of Haskell Laboratory for Toxicology & Industrial Hygiene of E. I. du Pont de Nemours & Co., Inc., Newark, Del., for his helpful suggestions pertaining to this study and to Miss Dorothy Hood of the same laboratory for carrying out the animal feeding experiments.

Cathode-ray irradiation of cellophanes

Changes in conventional types of moistureproof cellophane indicate that coatings may have to be modified if they are to be used on high-moisture foods processed by irradiation

*By M. Karel and B. E. Proctor**

Recent work in the field of radiation sterilization of foods and drugs shows the feasibility of using this method for certain limited applications (2, 5)†. More extensive applications are indicated in the future.

Radiation as a means of sterilization or pasteurization would allow the use of cheaper and more convenient containers than those currently used for heat-sterilized products.

One of the problems that arise in this connection is the possible effect of ionizing radiations on packaging materials. Considerable work has been carried out recently on radiation-induced effects on certain plastics (8). Most of these studies, however, have been devoted to the effects of pile radiations on plastics which are of interest as structural materials for applications in highly intense radiation fields. Little attention has been paid, so far, to the effects of sterilizing doses of ionizing radiations on the functional properties of packaging materials.

In a preliminary investigation, the authors (6) found that some undesirable changes in the properties of cellophanes were produced by irradiation. These results were in accordance with those of Saeman, *et al.*, (7) who found that ionizing radiations cause depolymerization and degradation of cellulose.

Since moistureproof cellophanes are used extensively for packaging of foods, an investigation to obtain further information on the effect of irradiation on such materials was undertaken; the results of some recent studies are presented in this paper.

Experimental

Radiation. The radiation source used was a Van de Graaff electrostatic generator that produced a beam of accelerated electrons of uniform energy (9). The applied doses were calculated from the voltage and current meter readings of the generator; 2 Mev cathode rays were used throughout the experiment. The dose actually absorbed by the samples was calculated on the basis of the known density of the films and the characteristics of 2.5 Mev cathode rays. All doses mentioned in this paper are based on rep_{93}.

Materials used. The materials used in this study were supplied by E. I. du Pont de Nemours & Co., Inc., and were stored before being irradiated and

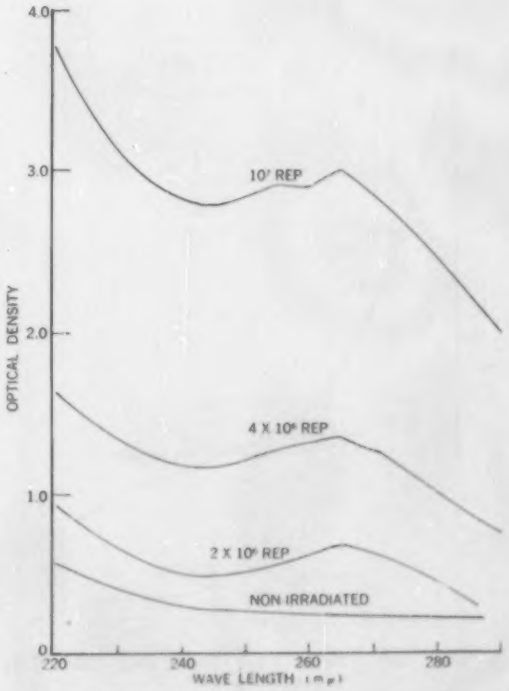


Fig. 1. Ultraviolet absorption spectra of water irradiated in contact with PT cellophane.

* The authors are with the Dept. of Food Technology, Mass. Institute of Technology, Cambridge, Mass. This is Contribution No. 209 from the Food Technology Dept.

† Numbers in parentheses identify References appended.

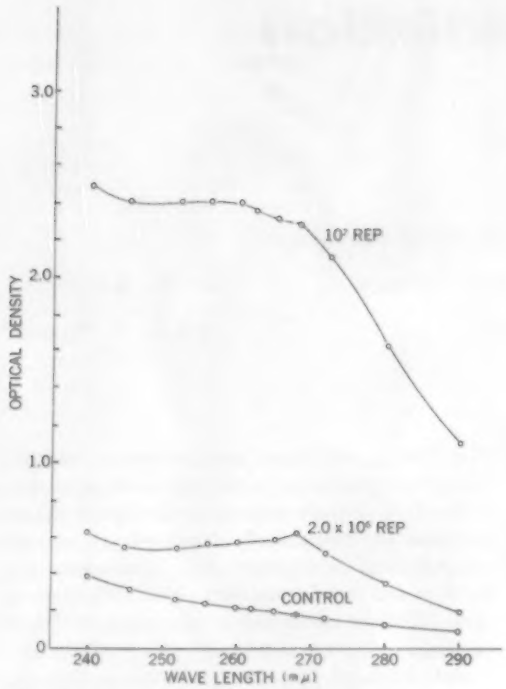


Fig. 2. Ultraviolet absorption spectra of water irradiated in contact with MSAT-80 cellophane.

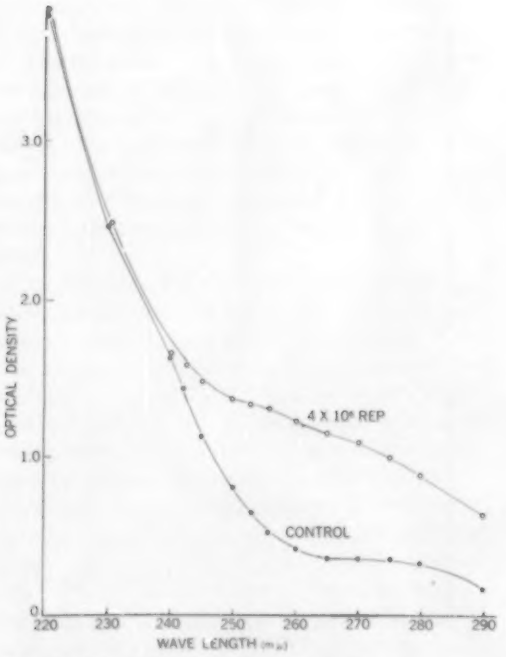


Fig. 3. Ultraviolet absorption spectra of water irradiated in contact with MSAT-87 cellophane.

tested in a constant-temperature room at 25 deg. C. and 50% R.H. The chemical composition of the materials as described by the manufacturer is presented in Table I.

Water-vapor permeability. Water-vapor permeability is one of the most important properties of moistureproof cellophanes. Since this property depends on the nitrocellulose coating and since nitrocellulose was found to be affected by radiations (1), it seemed desirable to ascertain the possible effects of radiation on the moistureproof cellophanes.

In a series of experiments, samples of MSAT-80 and MSAT-87 cellophane were exposed to two different doses of 2.5 Mev cathode rays. The irradiation was conducted on flat samples which were placed on a cellulose sponge in order to obviate possible thermal effects from the moving belt.

After irradiation the samples were tested for water-vapor permeability using an electric hygrometric method which has been described previously (3). The results of these tests are shown in Tables II and III.

Irradiation with 3.5 by 10^6 rep cathode rays did not affect considerably the permeability of samples that were kept flat during irradiation. Irradiation with 7.0 by 10^6 rep, however, caused a considerable increase in the water-vapor permeability which became especially apparent when the tests were conducted at higher humidities.

In a second experiment the effect of irradiation was tested on films in contact with distilled water.

Table I: Compositions of cellophanes described

I. *PT*—Plain cellophane
Regenerated cellulose
Plasticizer—approximately 20% glycerine
Surface sizing agent

II. *MSAT-80*—Base film similar to I (PT) with a nitrocellulose coating on one side. Coating formulation consists of the following:
A. Wax—for moistureproofness
B. Resins—for heat sealing and anchorage
C. Plasticizer—for flexibility—glycerine (approximately 20%)
Coating weight represents about 10% of total film weight distributed on one side only. The coating is applied from a mixed solvent solution, dried, solvent is evaporated and the roll rewound.

III. *MSAT-87*—Base film similar to I (PT) with the exception that ethylene glycol (approximately 16%) is used as a plasticizer in place of glycerine. A nitrocellulose coating is present on both sides—the coating formulation being similar to that in II. Coating weight represents about 10% of film weight—equally distributed on both sides.

Table II: Effects of 2.5 Mev cathode rays on the water-vapor permeability of cellophane MSAT-87, 300 gauge, irradiated flat.

Dose (rep)	*Conditions of test*	*Permeability (gms./24 hrs./ 100 sq. in.) corrected to 100% R.H. differential*
0	100% vs. 5-10% R.H. at 37.8°C.	1.1
3.5×10^6		1.4
7.0×10^6		2.4
0	100% vs. 15-25% R.H. at 37.8°C.	2.1
3.5×10^6		2.5
7.0×10^6		3.9
0	100% vs. 50-65% R.H. at 37.8°C.	2.5
3.5×10^6		2.7
7.0×10^6		7.1

Table III: Effect of 2.5 Mev cathode rays on the water-vapor permeability of cellophane MSAT-80, 300 gauge, irradiated flat.

Dose (rep)	*Conditions of test*	*Permeability (gms./24 hrs./ 100 sq. in.) corrected to 100% R.H. differential*
0	100% vs. 5-10% R.H. at 37.8°C.	1.7
7.0×10^6		3.8
0	100% vs. 15-25% R.H. at 37.8°C.	2.5
3.5×10^6		2.6
7.0×10^6		4.5
0	100% vs. 50-65% R.H. at 37.8°C.	2.8
3.5×10^6		3.1
7.0×10^6		8.35

In this experiment cellophane bags were filled with distilled water and heat sealed. After irradiation the bags were emptied and a portion of the bag was used for the determination of water-vapor permeability. Before being tested the samples were conditioned for 48 hrs. at 25 deg. C. and 50% R.H. Control samples, which were treated in an identical manner except for irradiation, were also tested. The results of these tests are shown in Table IV.

These results indicate that irradiation in contact with water produced an increase in permeability which was much higher than that observed after the irradiation of flat films.

In a further series of experiments, samples of irradiated and nonirradiated cellophanes were tested for oxygen and carbon dioxide permeability at 25 deg. C. using the method of Landrock and Proctor (4). The results of the tests are presented in Table V. The irradiation with 10^7 rep caused little change in the permeability of the film to dry gas; the permeability to oxygen and carbon dioxide at 60% R.H., however, was increased considerably.

The results of these experiments indicate that irradiation when applied at doses in excess of 3-5 x 10^6 rep, causes deterioration of the moistureproof qualities of cellophanes, especially when the irradiation is conducted on films in contact with moisture and when subsequent storage is at medium or high humidities. It seems highly probable that these changes are due to chemical decomposition of the coating.

Studies on transfer of irradiation products from irradiated cellophane. During the irradiation studies described above it was observed that distilled water irradiated in cellophane bags acquired a characteristic and unpleasant taste. This taste was absent when water was irradiated with similar doses in glass containers and when water was stored in cellophane bags for corresponding periods of time without being irradiated.

This observation seemed to indicate an interaction between the cellophane and water in presence of high doses of cathode rays. The assumption was confirmed by changes in the light absorption characteristics of the water.

In order to determine the extent and characteristics of the components transferred into the water

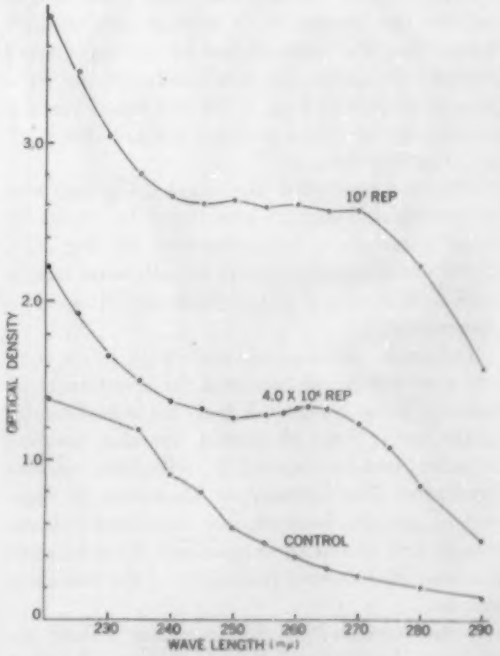


Fig. 4. Ultraviolet absorption spectra of water irradiated in contact with LSAT cellophane.

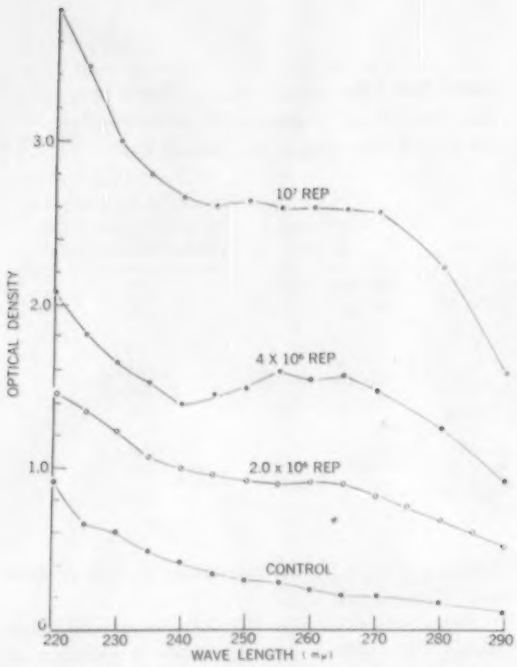


Fig. 5. Ultraviolet absorption spectra of water irradiated and stored for 24 hrs. in LSAT cellophane bags.

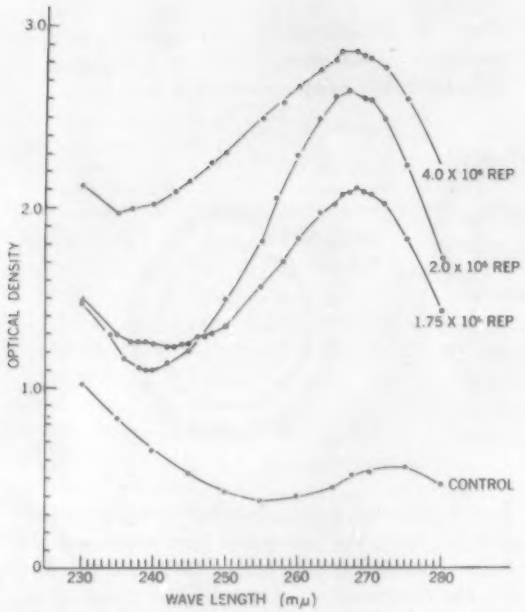


Fig. 6. Ultraviolet absorption spectra of pure glycerol irradiated with 2.5 Mev cathode rays.

from the cellophane under the influence of irradiation, the following experiment was staged.

Samples of each of four types of cellophane—PT, LSAT, MSAT-80 and MSAT-87—were subjected to cathode ray irradiation in contact with distilled water. This was accomplished by placing a small portion of each film (approximately 100 mg.)in a glass ampoule with 5 cc. of distilled water. The ampoules were irradiated with 2.0, 4.0 and 10.0 x 10^6 rep of cathode rays.

After the irradiation, the samples, together with an unirradiated control, were stored for 24 hrs. at room temperature (approximately 25 deg. C.). Ultraviolet absorption spectra of each water sample were then examined with a Beckman DU spectrophotometer.

The results, which are shown in Figs. 1 to 4, indicate that irradiation increased the transference of optically active compounds from the cellophane into the water. Some absorption was also observed in water samples exposed to cellophane without irradiation. The intensity of absorption in these control samples, however, was considerably lower than that of irradiated samples and the absorption characteristics differed from those of the irradiated samples.

Water irradiated in glass ampoules without the presence of cellophane showed no change in ultraviolet absorption.

In further experiments 10 cc. of water were placed in 10 by 10 cm. bags made of different types of cellophanes. The bags were irradiated, stored at 25 deg. C. for 24 hrs., after which the water was analyzed. The absorption characteristics were simi-

Table IV: Effects of 2.5 Mev cathode rays on two types of cellophane irradiated in contact with water

Material	*Dose (rep)*	*Test conditions*	*Permeability (gms./24 hrs./100 sq. in.) corrected to 100% R.H. differential*
MSAT-87	0	100% vs.	2.5
	7.0 x 10^6	15-25%	7.8
	3.5 x 10^6	R.H. at	3.2
		37.8°C.	
	0	100% vs.	3.2
	7.0 x 10^6	50-65%	15.0
	3.5 x 10^6	R.H. at	7.6
		37.8°C.	
MSAT-80	0	100% vs.	2.9
	7.0 x 10^6	15-25%	8.5
	3.5 x 10^6	R.H. at	4.5
		37.8°C.	
	0	100% vs.	3.5
	7.0 x 10^6	50-65%	16.2
	3.5 x 10^6	R.H. at	8.1
		37.8°C.	

Table V: Effect of irradiation on the oxygen and carbon dioxide permeability of cellophane MSAT-80

Dose (rep)	O_2 permeability cc./24 hrs./ 1 sq. m./1 atm.	CO_2 permeability cc./24 hrs./ 1 sq. m./1 atm.	Number of samples
I. Test conditions: 25°C., 10% R.H. on both sides			
0	1,896	6,917	10
10^7	1,978	7,163	10
II. Test conditions: 25°C.		*10% R.H. on dry side 60% R.H. on wet side*	
0	3,180	8,150	10
10^7	5,250	13,630	10

lar to those obtained with corresponding types of cellophane that had been irradiated in water-filled glass ampoules (Figs. 2 and 5).

Studies on plasticizers. The absorption spectra of the water irradiated in contact with cellophanes showed characteristics peculiar to carbonyl compounds. Since carbonyl compounds are known to be formed by the oxidation of compounds such as glycerol and ethylene glycol, it seemed of interest to determine whether irradiation of cellophane plasticizers would produce spectra similar to those obtained in water irradiated in contact with plasticized cellophanes.

Experimental. The irradiation of the pure plasticizers and of aqueous solutions thereof was conducted in 2-in. crystallizing dishes. Ten cubic centimeters of sample were used for each test, which was carried out with 2.5 Mev cathode rays from a Van de Graaff accelerator.

The dose was computed from the voltage and current meter readings of the generator.

The ultraviolet absorption spectra were obtained with the use of a Beckman Model DU spectrophotometer.

The pH of samples was determined using a Beckman Model H-2 pH meter.

Results and discussion

Samples of pure glycerine irradiated with cathode rays of doses of 1.75, 2.0 and 4.0 x 10^6 rep showed a pronounced change in the ultraviolet absorption spectrum, as is indicated in Fig. 6 and in Table VI.

The ultraviolet absorption spectra showed marked similarities to the absorption characteristics of glyceraldehyde and dihydroxyacetone. The thiobarbituric acid reaction of irradiated glycerol, however, was different from that of these compounds (Fig. 7). Although the conclusion that irradiation caused the formation of carbonyl groups is indicated by these results, it has not been possible, as yet, to determine the exact chemical nature of the compounds formed.

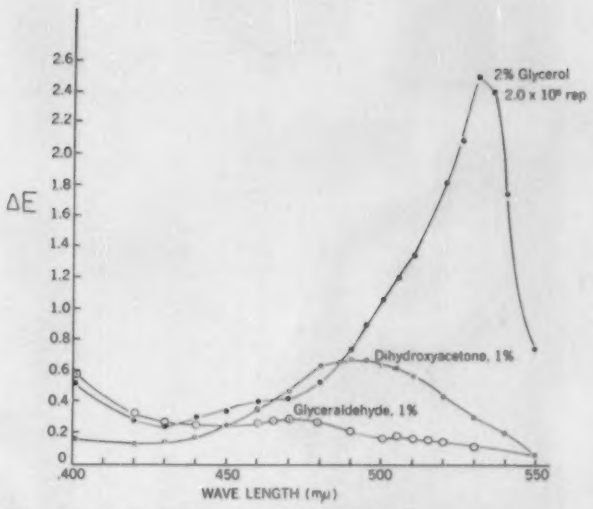


Fig. 7. Thiobarbituric acid reaction of irradiated 2% glycerol compared with the reaction of 1% dihydroxyacetone and 1% glyceraldehyde.

The extinction coefficient of the irradiated glycerol increased with irradiation dose throughout the spectrum. Irradiation with 1.75 and 2.0 x 10^6 rep did not change the pH of the sample, but a slight decrease in pH was observed after irradiation with 4.0 by 10^6 rep. [*Continued on page 146*]

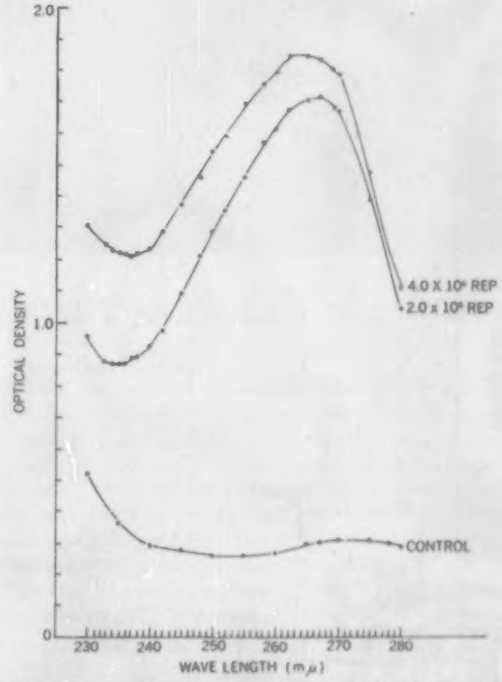


Fig. 8. Ultraviolet absorption spectra of 50% glycerol in water, irradiated with 2.5 Mev cathode rays.

Table VI: Summary of optical properties and of pH of irradiated-glycerol solutions

Sample	Dose (rep)	Max. mμ	Min. mμ	Extinction coefficient* at selected wave lengths 230	240	260	270	280	pH
Pure glycerol	0	275	255	1.0	0.66	0.41	0.58	0.44	6.8
Pure glycerol	2.0 x 10^6	267	239	1.48	1.1	2.3	2.66	1.73	6.3
Pure glycerol	4.0 x 10^6	267	235	2.13	2.02	2.68	2.84	2.22	5.7
50% glycerol	0	260-275	255	1.04	0.59	0.54	0.62	0.58	6.5
50% glycerol	2.0 x 10^6	267	234	1.92	1.86	3.23	3.36	2.09	5.6
50% glycerol	4.0 x 10^6	265	237	2.62	2.47	3.60	3.60	2.23	5.0
20% glycerol	0	273	255	2.5	1.5	0.70	0.90	0.75	6.6
20% glycerol	2.0 x 10^6			8.5	6.85	3.5	3.20	2.9	4.7
20% glycerol	4.0 x 10^6	242	235	19.3	19.6	15.5	13.0	8.5	3.8
5% glycerol	0	275	260	1.46	0.7	0.56	0.64	0.58	6.8
5% glycerol	2.0 x 10^6			32.0	24.8	13.2	8.8	5.0	3.9
5% glycerol	4.0 x 10^6	242	230	86.0	91.0	65.0	55.0	16.0	3.6

* Based on 100% glycerol

Fifty per cent glycerol irradiated with 2.0 by 10^6 rep and 4.0 by 10^6 rep gave ultraviolet absorption curves of a pattern similar to curves of irradiated pure glycerine, but of higher extinction coefficients at all wave lengths (Fig. 8).

Samples of 20% aqueous solution of glycerol irradiated with 1.75 and 4.0 by 10^6 rep of cathode rays showed a pronounced increase in the absorption of ultraviolet light.

After irradiation with 1.7 x 10^6 rep the curve had characteristics of general absorption. The extinction coefficient at all wave lengths was consider-

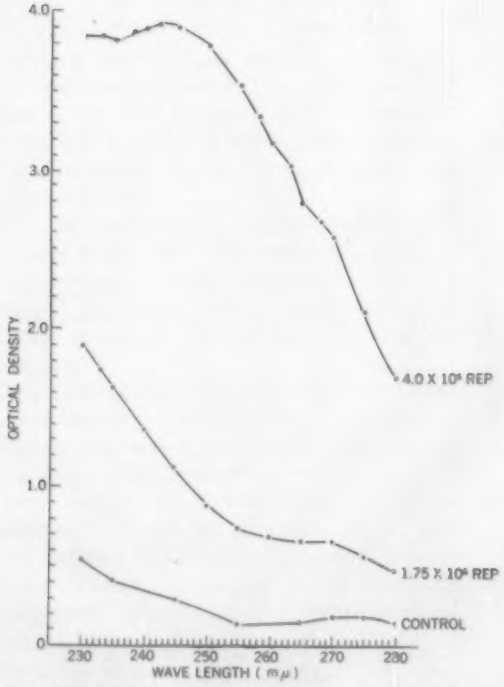


Fig. 9. Ultraviolet absorption spectra of 20% glycerol in water, irradiated with 2.5 Mev cathode rays.

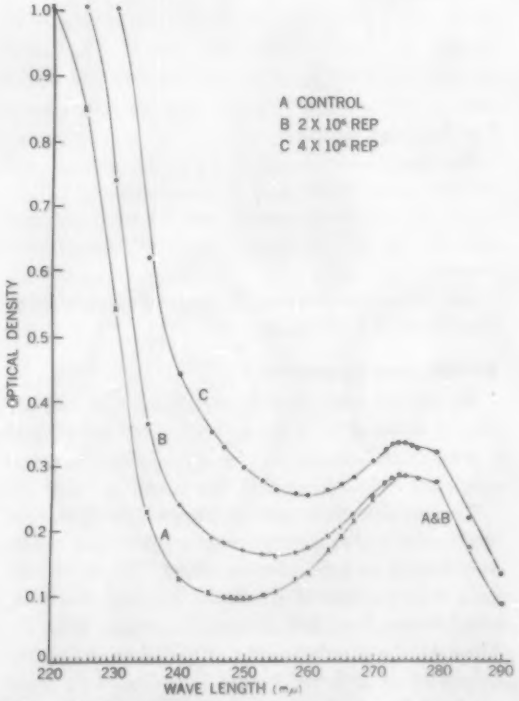


Fig. 10. Ultraviolet absorption spectra of pure ethylene glycol irradiated with 2.5 Mev cathode rays.

Olin Cellophane Sells The Truth

Walter Landor, package designer, says: "Shoppers are becoming calloused to competitive sales claims. More and more, they want to see before they buy.

"Because it allows people to sell themselves on a product, transparent Olin Cellophane offers a simple answer to the problem of motivating the 'show-me-or-else' consumer. Properly designed cellophane packaging reaches people deep down in their subconscious where the heart strings release the purse strings...to move your products faster off the shelf."

Walter Landor's advice reflects the most advanced thinking in package design. If the appearance and quality of your product are assets, let an Olin consultant help you or your designer repackage to meet the challenge of today's more critical shoppers. Film Division, Olin Mathieson Chemical Corporation, 655 Madison Ave., New York 21.

Olin CELLOPHANE®
OLIN MATHIESON CHEMICAL CORP.

A Packaging Decision Can Change the Course of a Business

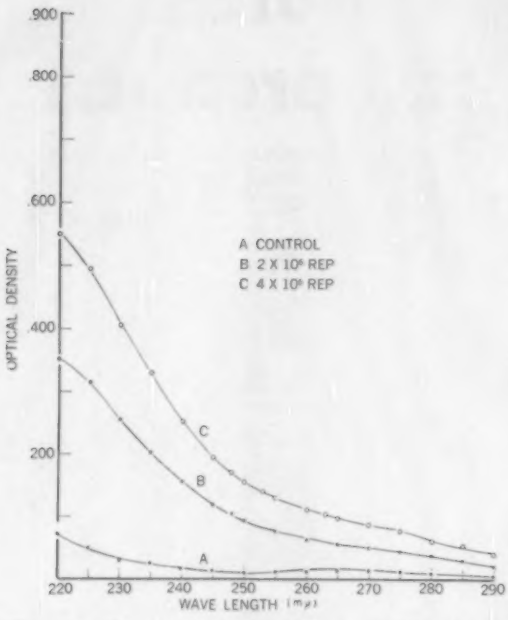


Fig. 11. Ultraviolet absorption spectra of 5% aqueous ethylene glycol irradiated with 2.5 Mev cathode rays.

ably higher than that of the samples of undiluted glycerine irradiated with the same dose (Fig. 9). The pH of the solution was decreased considerably.

After irradiation with 4.0×10^6 rep the sample showed a new type of absorption curve with a minimum of 235 mμ and a peak at 242 mμ. The extinction coefficients at all wave lengths were considerably in excess of those of the pure glycerol samples irradiated with the same dose. Considerable lowering of the pH of the solution was also observed.

Samples of 5% glycerol solution irradiated with 2.5 Mev cathode rays showed absorption curves which were similar in shape to those obtained with 20% glycerol solutions irradiated with the same doses. The extinction coefficients of the more diluted solution, however, were considerably in excess of those observed in the 20% solution. The pH was lowered significantly.

It appears from these results that:

1. Irradiation causes changes in glycerol both undiluted and in solutions of various concentrations.
2. The effect of irradiation seemed to increase with dilution of the samples.
3. The products of irradiation of undiluted glycerol and 50% glycerol solutions show absorption characteristics of carbonyl groups.
4. The products of irradiation of dilute glycerol are apparently more complex.

The lowering of the pH seems to indicate the presence of carboxyl groups.

Samples of undiluted ethylene glycol, irradiated with 2.0 and 4.0×10^6 rep showed changes in the ultraviolet absorption spectrum (Fig. 10).

The characteristic features of this change were:

1. A marked increase in absorption in the far ultraviolet region.
2. A shift in the minimum from 249 mμ to higher wave lengths.

Both effects increased with the dose and could be explained if the production of a substance with high absorption in the lower [*Continued on page 202*]

Table VII: Summary of optical properties and of pH of irradiated ethylene glycol solutions

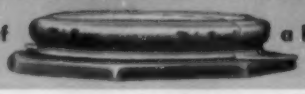
Sample	*Dose (rep)*	*Max. mμ*	*Min. mμ*	*Extinction coefficient* at selected wave lengths* 230	240	260	270	280	*pH*
Pure eth. glycol	0	274	249	0.545	0.130	0.100	0.250	0.290	7.0
Pure eth. glycol	2.0 x 10^6	274	255	0.740	0.245	0.170	0.260	0.290	4.6
Pure eth. glycol	4.0 x 10^6	274	260	1.050	0.445	0.255	0.315	0.340	4.4
50% eth. glycol	0	272	249	0.520	0.220	0.200	0.310	0.310	6.6
50% eth. glycol	2.0 x 10^6	272	255	0.800	0.350	0.240	0.320	0.330	4.2
50% eth. glycol	4.0 x 10^6	272	260	1.100	0.550	0.340	0.350	0.340	3.9
20% eth. glycol	0	272	249	0.400	0.200	0.200	0.320	0.320	6.8
20% eth. glycol	2.0 x 10^6			1.300	0.775	0.400	0.375	0.350	3.9
20% eth. glycol	4.0 x 10^6			2.200	1.100	0.675	0.475	0.425	4.0
5% eth. glycol	0	272	249	0.600n	0.300n	0.200n	0.300n	0.260n	6.6
5% eth. glycol	2.0 x 10^6			5.100	3.100	1.900	1.100	1.000	3.9
5% eth. glycol	4.0 x 10^6			8.100	5.100	3.100	1.800	1.550	3.8

* Based on 100% ethylene glycol
n—approximated

Tri-Sure® Closures protect RICHFIELD products

—in drums, cans and pails

Tri-Sure Closures for Drums

The Sign of  a Perfect Seal

The Richfield Oil Corporation uses Tri-Sure* Closures to give *complete protection* to its Richlube 10–30 Motor Oil, Richlube Extra Duty Motor Oil, Richfield Eagle Oil, and the new Richfield Super Circle C Motor Oil—whether they are shipped in 55 gallon drums or 5 gallon cans and pails.

Tri-Sure Drum Closures—with their interengaging Flange, Plug and Seal—make Richfield drums leak-proof and tamper-proof.

Tri-Sure Utility Can Closures make Richfield cans the kind that their customers *like*—easy to handle, pour, and refill.

Tri-Sure Reversible Spout Assemblies make Richfield pails easier to pour from, and easier to stack.

More and more companies, like Richfield, are utilizing Tri-Sure Closures to give additional sales advantages to their complete line of packages. Improve *all* your containers—for *all* your products—by specifying Tri-Sure Closures whenever you order drums, cans, or pails. Write for full information now on the complete line of Tri-Sure fittings for drums and light containers.

Tri-Sure Utility Can Closure

Double Hex Cap gives two sizes for pouring. Large filling opening makes re-use easy.

Tri-Sure Reversible Spout Assembly

Spout is protected inside pail during shipment or stacking. Long spout with reducer cap is ideal for pouring into all openings.

AMERICAN FLANGE & MANUFACTURING CO. INC., 30 ROCKEFELLER PLAZA, NEW YORK 20, N.Y.
CHICAGO, ILL. · NILES, OHIO · LINDEN, N. J.
Tri-Sure Products Limited, St. Catharines, Ontario, Canada
Tri-Sure S/A Indústria e Comércio, Sao Paulo, Brazil
American Flange & Manufacturing Co. Inc., Villawood, N.S.W., Australia
B. Van Leer N. V., Stadhouderskade 6, Amsterdam, Holland
Van Leer Industries, Ltd., Seymour House, 17 Waterloo Place, Pall Mall S.W. 1, London, England

*The "Tri-Sure" Trademark is a mark of reliability backed by over 35 years serving industry.

TRI-SURE THE WORLD OVER

Always specify **Tri-Sure** Reg. U.S. Pat. Off. **CLOSURES**

Q Questions & A Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 575 Madison Ave., New York 22, N. Y. Your name or other identification will not appear with any published answer.

Laminating foil to paper

Q. *We have just begun to laminate aluminum foil to paper and are experiencing trouble with breakage of the foil. The same machine has been entirely satisfactory for combining various papers and plastic films. Is a special design or special attachment necessary to prevent breakage of the foil during lamination?*

A. Most well-designed laminating equipment can be modified to perform satisfactorily to combine paper and aluminum foil. Aluminum foil in thin gauges is low in tensile strength and also in tear resistance. As a result, the foil web can be broken or torn by poor alignment of the roll, by erratic drives or by excessive pull on the foil roll.

It is desirable to place the foil roll very close to the combining rolls so that the free span of the foil is as short as possible. In many cases the breaks will occur if the laminator is brought up to operating speed too fast.

It is suggested that you contact your foil supplier, who can give you advice and assistance in both modifying your equipment and in training your operators to laminate aluminum foil to paper successfully.

Stretchable labeling

Q. *We would like to apply a label to a product that is soft and stretchable. Paper labels adhere well, but split when the product is bent or pulled. Can you suggest a label material and method that would solve this problem?*

A. There are many plastic films that can be printed and adhered to a product and undergo severe distortion without breakdown or deterioration.

The plastic film or sheeting should have a high value of elongation, that is, stretchability, and be printed with inks that are well bonded and flexible. Such plastic films as polyethylene, saran and some grades of Pliofilm and vinyl are probably most suitable.

The printed plastic label can be attached with a solvent-resin type of adhesive used with pressure and warmth to insure and accelerate adhesion. Such a label and adhesive system can be developed which would undergo severe distortions and remain in good condition.

Polyethylene oil resistance

Q. *Why does polyethylene film show such different results in holding various kinds of oils and greases? Also, will the new low-pressure resins make film that will be better in this respect?*

A. Present commercial polyethylene film is made from high-pressure-process resin having a density of about 0.92 and a crystallinity of about 75%. Film made from such resin is soft and is penetrated by many types of oils or greases or by some of their low-melting fractions. The mechanism of this penetration and transmission is not easy to explain, but it appears to take place through the amorphous or noncrystalline phase of the resin.

Apparently certain oils or fatty substances wet the resin and diffuse into and through it to form an oily film on the surface. If this oily film is not removed, then the process stops; but if the outside oily film is absorbed by paper in contact with it, then the process will continue to function and severe staining of a package can result.

The low-pressure process can make resins having a density of around 0.96 and crystallinities of about 95%. Such resin can be expected to show great resistance to the absorption or penetration of oils and greases. Films made from these resins will be greaseproof for all practical purposes. However, it is always advisable to test thoroughly any plastic film when new package constructions are being considered, or when new products are being developed.

It should be kept in mind that both the high-pressure and the low-pressure process for making polyethylene are in a state of development and that both appear capable of making resin with a wide range of properties. For this reason, it is desirable to designate polyethylene resins by their important characteristics rather than by their process of manufacture.

Change in bottle closure

Q. *We have been using a lined metal screw cap in a small glass bottle carrying one of our liquid cosmetics. Recently we changed to a linerless polyethylene cap. However, we have had some troubles with the threads slipping when the cap is firmly tightened. Is there a simple way we can solve this problem?*

A. The metal screw cap and bottle finish were properly designed for each other and gave no difficulties in making a tight closure. Both threads are rigid and can take heavy torques. However, the polyethylene cap is flexible and may be slightly oversized. Also, the glass finish may need to be changed.

It is suggested that you bring the bottle and cap supplier together so they can jointly make changes that will result in a tight closure that will eliminate the danger of the cap loosening.

It is doubtful if anything can be done with the present supply of bottles or caps unless you can get a positive closure with less tightening torque, but this should be carefully tested and controlled before going into large-scale production.

TECHNICAL SERVICE AND SUPPLIES FOR THE PRINTER - - *by Wilsolite*

Wilsolite laboratory service or Wilsolite trained field technicians working in your own plant are always available to give you whatever assistance you need to help solve any problems you may have.

In addition, Wilsolite carry a full stock of the finest printers' supplies available:

GOODYEAR **Rubber: Natural and Synthetic—Molding and Engraving**

BAKELITE MATRIX MATERIALS

WRITE FOR FULL INFORMATION AND SAMPLES

Wilsolite CORP.

1827 NIAGARA STREET • BUFFALO 7, N. Y.
Canadian Affiliates: Fort Erie, Ont., Toronto, Ont.

WAREHOUSES
Denver
Hackensack
Los Angeles
Pensacola
San Francisco
Seattle

NEW LOW PRICE

BAG and LABEL SEALER

New low-price model puts automatic label sealing within the reach of even the smallest business. Seals bags of cellophane, polyethylene, pliofilm, etc., and attaches saddle labels in one fast, automatic operation.

Write for information about this and our DeLuxe Vacumatic Sealer

MERCURY
HEAT SEALING EQUIPMENT CO.

Complete line of heat-sealing equipment

2607 NORTH HOWARD STREET
PHILADELPHIA 33, PENNSYLVANIA

Distinctive Plastic Containers

J-E invites your inquiry on semi-rigid plastic packaging designed to give your product maximum sales appeal at the point of purchase.

J-E PLASTICS MFG. CORP.
555 WEST 23rd STREET, NEW YORK 11, N. Y.
OREGON 5-6789

First award, polyethylene bags and pouches—RECORD OF THE MONTH envelope by Wrapture. "Four mil polyethylene dramatically printed by a flexographic process provides fine protection both in shipping and for home reuse . . . appears applicable as replacement for hard albums."

First award, polyethylene sheets and rolls—LADY PEPPERELL blanket package by Nashua. "Printed polyethylene wrap affords complete protection, encourages dramatic display, reveals entire color line at a glance, effects substantial economies over the bulky boxes formerly employed."

award-winning designers use VISQUEEN film T.M. to score top honors

In first national contest for flexible packages. Take *both* firsts, *both* seconds, five of six honorable mentions.

Honorable mention—WALTON-MARSH CO. by Herb-Shelly. "A rather unattractive product covered by 2 mil white polyethylene. Gold and black design provides sales appeal, display needed for impulse sales. Design on back emphasizes many uses, carries printed usage directions. Foltop feature permits removal, easy replacement, storage at home, in stores.

Honorable mention—C. H. SIMON CANDY CO. by Boyertown Packaging Service Corp. "Delightful Pennsylvania Dutch design is appealing and suggests candy origin. The heat-seal 3 mil polyethylene gives adequate protection for difficult product formerly in glass. Breakage eliminated, new outlets opened. Sales have increased consistently."

Honorable mention—J. P. STEVENS INC. by Container Corp. of America. "This 1½ mil printed polyethylene bag replaced rigid acetate containers which required partitioned shipping cases. Novel shape, tasseled closure, affords dramatic display, adds quality touch and smart appearance. Package has completely eliminated breakage problem."

Second award, polyethylene bags and pouches—ARROW SHIRT package by Bemis. "Flip-close top of this polyethylene bag affords protection, yet provides easy inspection and return to package. Gusset bottom opens to exact collar height, yet avoids usual rabbit ears. Replaces shirt box."

Second award, polyethylene sheets and rolls—HONEYSUCKLE BIRDSEYE DIAPERS package by Milprint. "Unique combination of gravure and flexographic printing permits realistic halftone and line reproduction . . . gives product visibility, inventory control and quality distinction."

Whatever the problem, whatever the product, leading designers turn to VISQUEEN film for flexible packages. Textiles, produce, foods, novelties that need both protection and display are naturals for VISQUEEN film. Packages resist breakage in transit and at point of sale. VISQUEEN's unmatched uniformity, stiffness and body mean better, faster performance on the production line, cut packaging cost up to 50%. VISQUEEN won't crack, dry out or get brittle, is unaffected by display lights. VISQUEEN keeps moisture where you want it—in or out of the package, performs well at temperatures as low as minus 70 degrees.

Got a packaging problem? Ask for the help of our technicians.

THE VISKING CORPORATION

Plastics Division, Terre Haute, Indiana

World's largest producers of polyethylene sheeting and tubing

IN CANADA:

VISKING LIMITED, LINDSAY, ONTARIO

IN ENGLAND:

BRITISH VISQUEEN LIMITED, STEVENAGE

Honorable mention—SAKS FIFTH AVENUE shoe bag by Wrapture. "Polyethylene bag provides protection from abrasion, replaces former tissue wraps. Appreciated by consumers for re-use in traveling. Carries store name home in attractive form. This package won an honorable mention in outstanding package category, all types."

Honorable mention—PEPPERELL MFG. CO. sheet package by Nashua. "Gravure printed polyethylene designs are the latest in a series that was started in 1952. The eye appeal of harmonious designs and pastel sheet colors insures permanent display and quick consumer selection." Pepperell has used flexible packages since 1948.

Equipment and materials

Three German-made machines

Potdevin International, Ltd., 285 North St., Teterboro, N.J., is sales agent for three German-made machines—a bundling machine, a varnishing and coating machine and a folding-box gluer for small and medium box runs. Illustrated is the bundling machine, which reportedly handles such diversified products as cartons, labels, cardboard, papers, etc., simply by changing dial settings. With the exception of feeding, this portable machine is automatic. It can process 25 bundles per min., in sizes from 2¾ to 11 in. long, 1⅜ to 6¾ in. wide and 2 to 3½ in. in height. The varnishing and coating machine reportedly can over-all coat sheets up to 50 in. wide and 59 in. long at rates up to 25 per min.

The folding-box gluer, which requires two operators, features quick change-over for a wide range of sizes at speeds up to 200 ft. per min., according to the company. Range of adjustments are from 1 3/16 to 12 13/16 in. folded flat and 4 to 15¾ in. in length.

More functional polyethylene for film

A higher density polyethylene, tradenamed "Poly-Eth Hi-D," 2504, for making film that is stiffer, boilable and less permeable has been announced by The Spencer Chemical Co., Dwight Bldg., Kansas City 5, Mo. The new polyethylene film can withstand temperatures up to 240 deg. F. and it retains flexibility at minus 70 deg. F. It is said to exhibit high clarity and greater yield strength than conventional film and it has excellent slip characteristics. It will not block, making it easy to roll the film or open bags for packaging. "Hi-D" film can be processed on conventional film-making equipment.

High-gloss paper boasts new colors

Drum-finished paper for high-style box wraps and labels can now be enhanced by a variety of colors, according to Champion Paper & Fibre Co., Hamilton, Ohio. Metallic inks—silver and gold—heretofore were the only ones the paper would receive, but a new process of mixing standard inks with the metallic inks makes possible a much wider selection of colors, according to Champion. Samples of paper printed in this manner are available from the company.

Skin packaging in cast vinyl film

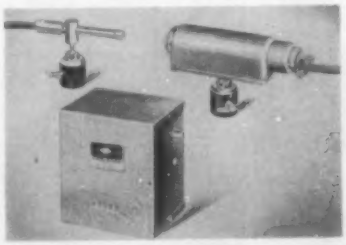
Krene cast vinyl film is being produced by the Bakelite Co., Div. Union Carbide & Carbon Corp., 260 Madison Ave., New York 16, for use in skin packaging. The cast vinyl film is said to be especially advantageous for skin packaging because it has excellent strength and dimensional stability. It offers excellent clarity, handles well on vacuum-forming equipment and will not curl the paperboard backing when it cools. According to the producer, there is practically no moisture absorption, no blushing or clouding. The film is now being used successfully to skin package hardware, toys, ball-point refills and similar items.

Catsup bottle cap reseals airtight

A new cap for catsup bottles that is easily removed and which forms an airtight seal when replaced has been developed by the White Cap Co., a subsidiary of Continental Can Co., Inc., 1819 N. Major Ave., Chicago. The new twist-off cap needs only a quick quarter-turn to open and to reseal. It is reported to maintain an efficient vapor-vacuum seal on reclosure. For the packer, the new closure is said to permit the same speed and efficiency in capping operations that is possible with the established White Cap vapor-vacuum method of sealing. The new cap is also recommended by the supplier for packaging such foods as preserves, pickles, peanut butter and mayonnaise.

New, compact photo-electric controls

Miniature construction of the new Robot-Eye photoelectric controls announced by Standard Instrument Corp., Robot-Eye Photo Control Division, 657 Broadway, New York 12, permits their installation in close quarters. Light and cell unit is swivel mounted for ease of installation and alignment. The unit will follow operations up to 600 per min. and can work from direct beam, reflection from the object being controlled, or mirror reflection.

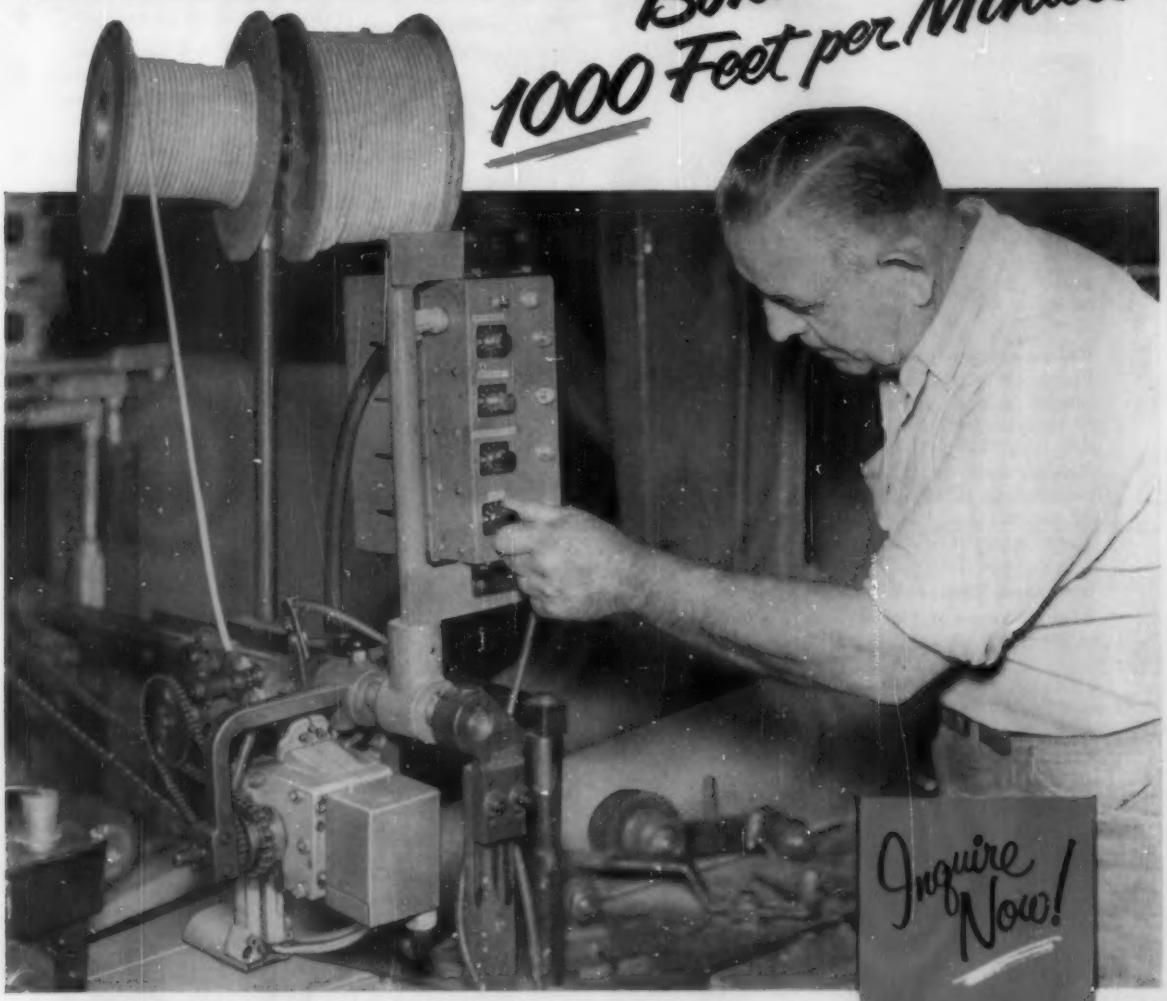


New licensee for 'Tetra-Pak' paper

The Swedish firm of Akerlund & Rausing has licensed The Dobeckmun Co., P.O. Box 6417, Cleveland 1, Ohio, to produce "Tetra-Pak" paper in the United States. This paper, a bleached kraft, wax coated on the outside and polyethylene coated on the inside, is designed for use on Tetra-Pak machines to produce the economical, tetrahedron-shaped, Tetra-Pak carton, long popular in Europe for packaging milk, cream, yogurt, fruit juices, etc. The machinery on which the

THERMOGRIP

Bonds at 1000 Feet per Minute



Thermogrip Applicator Model A mounted on tuber in bag making plant.

THERMOGRIP — The new adhesive in coils — bonds polyethylenes, foil, PE coatings, glassines and a vast range of plain or treated papers and boards at your *highest machine speeds*. For example, a ¼" wide seam can be produced at up to 1000 feet a minute.

This particular THERMOGRIP applicator melts just the right amount of adhesive and applies it continuously. Gone are all problems of adhesive charring, vaporizing, degradation, evaporation, lumping and slow drying. The THERMOGRIP principle also eliminates adhesive preparation, mess and clean-up.

Can high speed, continuous bonding of tough-to-stick materials increase or improve production for you? Write us now about your particular application.

Industrial Sales Division **United**

SHOE MACHINERY CORPORATION

140 Federal Street, Boston 7, Mass.

Thermogrip—Manufactured by B. B. Chemical Co., Subsidiary

Equipment and materials

[*Continued from page 154*]

packages are formed is available to dairies on a lease basis from "Tetra-Pak" Corp. in New Jersey.

Price marking spots on molded closures

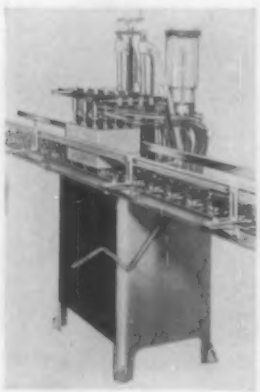
Price-marking space can now be molded in the tops of plastic closures as the result of a new method of manufacturing closures developed by the Owens - Illinois Glass Co., Toledo, Ohio. For years supermarkets have been requesting that some method be devised for price marking these closures in order to speed up shelf stocking of items in retail outlets. To provide a price-marking space a raised section the same size as the price spot is formed on top of closure.

Gallon and half-pint plastic containers

Plastic containers suggested for packaging ice cream, sherbet, salads, candy, nuts, etc., are now available in half-pint and one-gallon sizes from Premium Plastics, Inc., 2440 S. Indiana Ave., Chicago 16. The new sizes are made of high-impact styrene, with a snap-on polyethylene lid for the gallon container. Both direct lid imprinting and labelling methods will continue as a service on the new sizes.

New case-filling machine

A whole carton full of containers can be filled right in the carton with the new MRM case-filling machine, according to the manufacturer, MRM Co., Inc., 191 Berry St., Brooklyn 11. The machine consists of an adjustable, multiple head-filling mechanism. The number of heads supplied corresponds with the number of containers packed in a case. Each head is adjustable to compensate for variations in container sizes. The case-filling machine can handle from 6-oz. up to gallon-size containers of any type—glass, metal or plastics. Illustrated is a semi-automatic model, but unit can be supplied for completely automatic operation in either vacuum, gravity or pressure types.

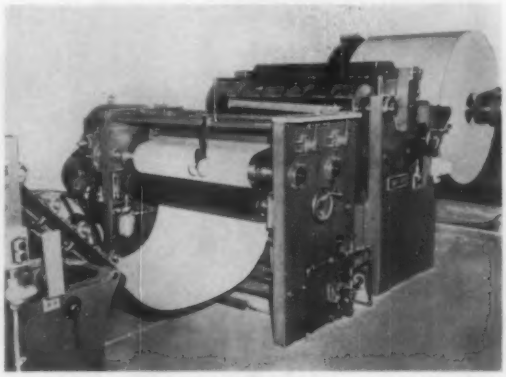


Vinyl film adhesives

Three water-base adhesives for vinyl chloride films have been announced by National Adhesives Div., National Starch Products, Inc., 270 Madison Ave., New York. Resyn Emulsion 33-8020 is recommended for adhering vinyl film to cloth, paper and paperboard. Emulsion 33-8030 is recommended for the wet combining of vinyl chloride to paperboard and wood. Both of these may be applied by reverse roll coater, gravure or air knife. Resyn Emulsion 33-8010 is suggested for laminating vinyl film to latex saturated paper and is recommended for knife coating.

Automatic butt splicer

A new butt splicer that joins a new web onto an expiring web automatically while a press is running at high speed was recently announced by the Champlain Co., 88 Llewellyn Ave., Bloomfield, N. J. The new unit



is designed for inline operation with roll-fed presses. Its single-cycle operation synchronizes the speed of the new web with that of the expiring web, simultaneously cuts both, ejects waste material, and butt splices the two webs with pressure sensitive tape. It is said to perform at press speeds up to 300 f.p.m. and will handle any width of paperboard. It is available in three sizes—26 in., 36 in. and 44 in.

New cans for chemical specialties

An improved non-drip can and a new pressure can have been announced by American Can Co., 100 Park Ave., New York. Illustrated is the Accu-Por container which has a one-piece formed top incorporating a non-drip nozzle to cut off the flow of liquid after pouring. It is available in the 16- and 32-oz. sizes and will take a metal screw cap (shown in photo), or an aluminum closure. It can be used for any liquid product now packaged in cans that does not require an interior coating, according to the company. The new pressure can is the 8-oz. Queen Size.

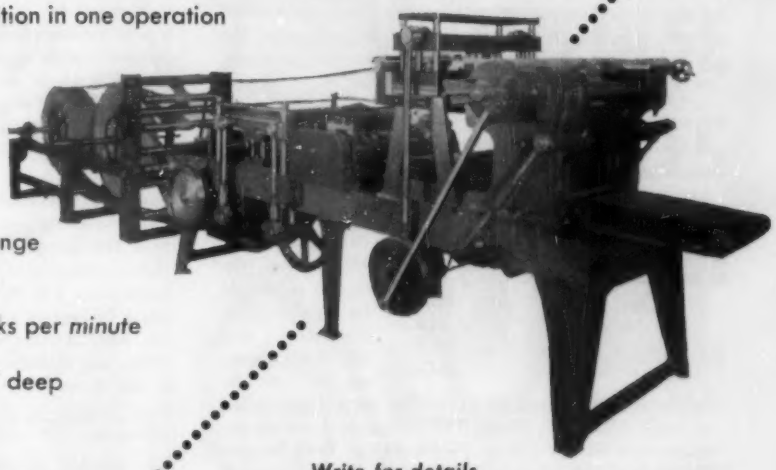
Boilable polyethylene film

A new series of calendered polyethylene films of the low pressure or linear type to supplement its existing Polyken polyethylene films has been announced by Kendall Co., 309 W. Jackson Blvd., Chicago 6. Greater heat resistance, lower gas permeability and improved

Eliminate costly hand-made partitions

Your production costs can be slashed with the Inman automatic adjustable partition machine

- From roll stock to finished partition in one operation
- Only one operator required
- Clean cut, accurate and uniformly made partitions
- Machine fully equipped and easily adjustable for a wide range of sizes
- Production of 100 or more tucks per *minute*
- Will handle partitions up to 7″ deep
- Production proven



Write for details

INMAN *Manufacturing Co., Inc.* AMSTERDAM, N.Y.

Stuck with a sticking problem?

use...

SLIPICONE

heat-stable silicone release agent

Speeds packaging and labeling—keeps films, waxes, adhesives and other packaging materials from sticking to heat-sealing equipment.

Reduces maintenance and cleaning costs—keeps equipment clean and sanitary . . . prevents pile-up, browning and ink-smear.

Available in Compound or Spray—for quick, efficient application to all types of packaging and labeling equipment. *Compound*—2 and 8 oz. tubes; 10 lb. cans. *Spray*—12 oz. aerosol bombs.

Save money with Slipicone. Write today for list of distributors.

DOW CORNING SILICONES

Address Dept. 7613

DOW CORNING CORPORATION

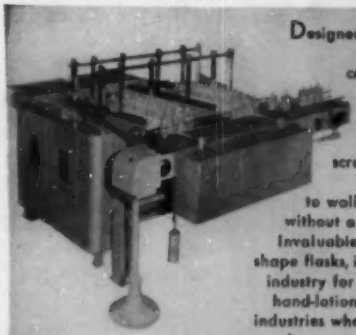
MIDLAND, MICHIGAN

ATLANTA • BOSTON • CHICAGO • CLEVELAND • DALLAS
DETROIT • LOS ANGELES • NEW YORK • WASHINGTON, D.C.

(Silver Springs, Md.)

NEW! High Speed

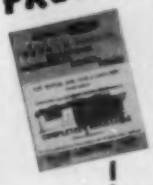
WALKIE-PUSHIE UNSCRAMBLER



Designed to accommodate practically any size or shape container at speeds up to **400 to 450 per minute**

Bottles, jars and other containers are unscrambled *without agitation* and transfer from chain to walking beam is very gentle, without any contact of containers. Invaluable in the distillery for odd shape flasks, in the drug and cosmetic industry for unusual after-shave and hand-lotion bottles, as well as other industries wherein not only round but also unusual shapes and sizes must be handled at high speeds.

FREE!



MAIL THIS COUPON FOR FULL DETAILS

ISLAND EQUIPMENT CORP. Dept. MP-1
27-01 Bridge Plaza North
Long Island City 1, N. Y.

Sounds interesting. Send me full details on your WALKIE-PUSHIE UNSCRAMBLER.

COMPANY.....

NAME.....

ADDRESS.....

CITY..... STATE.....

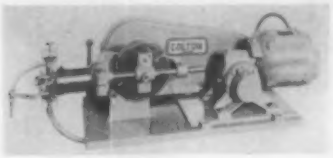
Equipment and materials

[*Continued from page 156*]

chemical resistance make this a good film for boilable food packaging, vacuum forming, chemical and industrial packaging and other uses where additional thermal properties are necessary, according to the company. New films are available in natural and black, in gauges from 0.004 to 0.025 in. and in widths up to 32 in.

High-speed, low-cost liquid fillers

Two new "Little Giant" models added to the Colton 100 series line of liquid fillers by Arthur Colton Co., 3400 E. Lafayette, Detroit 7, Mich., are designed primarily for smaller manufacturers and are also suggested for use by larger manufacturers for small lots or samples filled in small quantities. Model 117 (illustrated) is single-nozzle and Model 119 is double-nozzle. Both feature high-speed, volumetric filling in a low-cost, compact, bench-type machine. They are equipped with the recently announced Colton-patented metering cylinder that permits accuracies within less than 1% variation, according to the company. They will handle a wide variety of liquids ranging from aqueous penicillin to paint, from alcohol to cream oil consistencies.



New, lower-cost stapler

The International Staple & Machine Co., Herrin, Ill., is manufacturing a less-expensive end stapler for closing filled cartons that reportedly does as fast, efficient and economical a job of stapling all kinds of end-open cartons as that of the more expensive deluxe end stapler. It accommodates an end-open or center-slot carton. The table is 19 by 24 in. and is 31 in. high; staple position is 12 to 15 in. above table.

Versatile electronic package inspector

A wide variety of packages can be inspected for uniformity by the new Photobell Package Inspector developed by the Photobell Sales Corp., 43 Vesey St., New York 7. The new inspection unit is based on the use of high-frequency current passing through the entire package. Materials respond to this current in

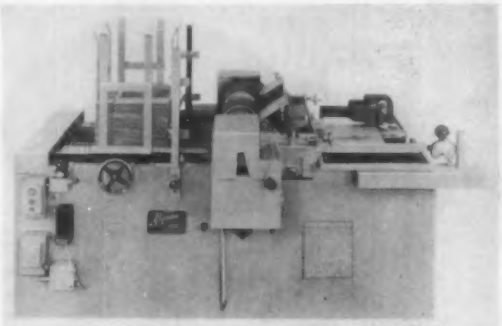
proportion to their own electrical properties, as well as to the volume of materials present. The machine will sort out and remove from a conveyor cracker packages which have less than the proper number of wax-wrapped inserts inside or which are slightly under weight. It will remove cartons which do not have the correct number of bottles or bottles which are not full. It will remove packages which have no metal caps, or cartons which have no tube inside. It will sort out cans which do not have a high-enough level of contents, prior to capping. Any package containing materials that can affect the flow of high-frequency current may be similarly examined and sorted.

Semi-automatic beverage inspection unit

A new semi-automatic inspection machine designed to meet the requirements of smaller beverage-bottling plants, announced by Radio Corp. of America, 30 Rockefeller Pl., New York 20, speeds and facilitates visual inspection of bottled beverages on the production line. It runs at operating speeds of up to 220 bottles per minute, processes standard bottles ranging in size from 6 to 12 oz. and is reported to permit rapid inspection of pulpy and even partially opaque beverages. The unit will be available in the spring.

New corrugated box-printing machine

An automatic box-printing machine with a workable hopper feed attachment has been designed for in-plant operation by Algene Marking Equipment Co., 232 Palisade Ave., Garfield, N.J. This machine is said



to overcome the previous difficulties encountered due to the uneven bulk of corrugated boxes. Machines can be made to suit the individual manufacturer's printing requirements and to accommodate their range of box sizes. Up to 3,000 cartons per hour, depending on size, can be handled by this machine which will print anywhere from one panel to every panel, flap and side of a flat box. A metering device has been incorporated in the new Algene printer.

Improved bread wrapper

A new bread wrapper with improved sealing and printing qualities is reported by Marathon Corp., Menasha, Wis. The new Tyton wrapper is described as whiter, stronger, smoother and glossier, with better printing qualities.

Folder-creaser for thermoplastic sheets

A new dual-purpose machine with a fast production cycle for both folding and creasing of cast and extruded thermoplastic sheet from 0.005 to 0.020 in.

PLAX PLASTIC CONTAINERS

- Immediate Delivery on Stock Items (from ¼ oz. to 13 gal.)
- Private Molds
- Packaging & Technical Service

CALL YOUR LOCAL PLAX DISTRIBUTOR

ATLANTA 3, GEORGIA
H. Smith Bottle Supply Co.

BALTIMORE 2, MARYLAND
Atlantic Glass Company

BOSTON 27, MASSACHUSETTS
S. H. Ansell & Sons

BROOKLYN 17, NEW YORK
J. Rabinowitz & Sons, Inc.

BUFFALO 4, & SYRACUSE, N. Y.
Empire State Bottle & Barrel Co., Inc.

CHICAGO 8, ILLINOIS
Continental Glass Company

CLEVELAND 15, OHIO
L. S. Kaufman & Sons

DETROIT 11, MICHIGAN
M. Jacob & Sons

DOWNSVIEW, ONTARIO
Plastic Bottle Sales Limited

JACKSONVILLE 3, FLORIDA
Smith Bottle Supply Co. of Jacksonville, Inc.

MEMPHIS 2, TENNESSEE
Wurzburg Brothers Inc.

MILWAUKEE 4, WISCONSIN
W. B. Bottle Supply Co., Inc.

MINNEAPOLIS 11, MINN.
Twin City Plastic Package Co.

PHILADELPHIA 46, PENNA.
Zuckerman-Honickman, Inc.

PITTSBURGH 19, PENNA.
Samuel Mallinger Co.

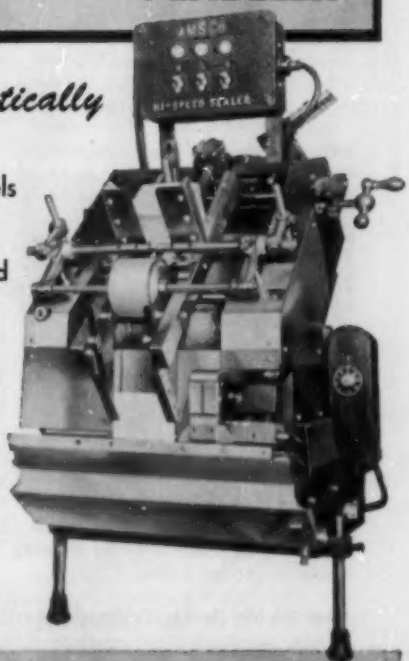
ST. LOUIS 7, MISSOURI
Northwestern Bottle Company

Put your product in a transparent bag and give it

IMPULSE SALES POWER!

Here is the low-cost packaging machine that makes it possible

The AMSCO BAG SEALER/LABELER



Automatically

- seals
- header-labels
- imprints
- punches and
- code-dates

the bag!

Write Dept. MP-1 for descriptive literature

Amsco

AMSCO PACKAGING MACHINERY, INC.
31-31 48th Avenue, Long Island City 1, N. Y.
REPRESENTATIVES IN PRINCIPAL CITIES

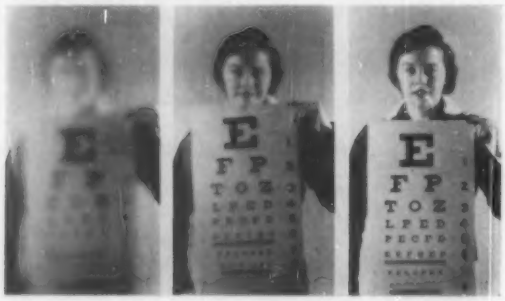
Equipment and materials

[Continued from page 158]

in thickness is the new Taber Thermatic Folder-Creaser Model 178, manufactured by the Taber Instrument Corp., 111 Goundry St., North Tonawanda, N.Y. This machine rapidly forms right-angle (90 deg.) creases used in making rectangular transparent boxes and covers. It also forms 180 deg. flat folds. Blade readily accommodates folds up to 30 in. in length.

New polyethylene resins for high-clarity film

Two new film-grade polyethylene resins that are said to offer greatly improved clarity at no price increase are announced by the Bakelite Co., Div. of Union Carbide & Carbon Corp., 260 Madison Ave., New



York 16. One of the resins is a completely new formulation which is still undergoing field evaluation. Illustration at right shows model and chart as photographed through film made from this new resin. The other new polyethylene resin for making film is a modification of an existing resin—in the same demonstration (see middle photo), letters are legible though slightly fuzzy. Photo at left shows model through film made from conventional resin.

Machine forms, prints foil caps

A new British machine that forms and prints aluminum foil caps at the rate of 7,500 an hour is announced by Fords (Finsbury) Limited, Chantry Ave., Kempston, Bedford, England. The machine's punch and die, reportedly, will remain in perfect alignment. Kraft Foods Co. has on order two of the new machines for capping its line of Party Snack cheese packages.

New tubing that withstands sterilization

A new sterilizable polyethylene tubing, tradenamed "Steripol," has been announced by Food Film, Inc., Box 258, Caldwell, N.J. It is available in the same widths as the company's "Standard" tubing of 2 in. through 4½ in. and with gauges from ¾ mil to 2 mil. The new tubing is suggested for packaging medical materials or instruments to be sterilized in the package and for frozen foods to be cooked in the package. It is made by patented methods and machines developed by Milo R. Gerow, Montclair, N.J., and licensed to Food Film, Inc.

Conveyor-line marker for light packages

A small conveyor-line marker for imprinting light packages and other items requiring type impressions that do not exceed ⅜ in. in height has been added to the line of heavy-duty units manufactured by Wm. A. Force & Co., Inc., 216 Nichols Ave., Brooklyn 8. The new model, No. 3AC ⅜, is an automatic, continuous rotation conveyor-line marker of small diameter and narrow wheel. It can be mounted either horizontally or vertically on either right or left of conveyor.

Air-operated tape dispensers

New, fully automatic, air-operated tape dispensers for pressure-sensitive tapes are reported by the manufacturer, Air Fixtures, Inc., 202 W. Main St., North Manchester, Ind., to eliminate all push buttons, levers and foot pedals. When the operator removes a piece of tape from the dispenser a microswitch automatically sets in motion the next delivery cycle. Illustrated is the Model AFET-822 which handles filament, glass fibre, cloth, heavy paper, plastic film, cellulose and acetate fibre tapes in widths up to 4 in. and lengths up to 21 in.

Paper-bag method for cushioning bottles

Cushioned paper bags which fit snugly around each bottle within a shipping case are said to substantially reduce bottle breakage, eliminating the need for separators. Jet-Pak, Inc., 859 Summer Ave., Newark, N.J., manufacturer of the Jet-Pak bags, reports that this new method of packing bottles has already saved one distiller many thousands of dollars in breakage costs.

New vacuum packs for meats

Printon Corp., 304 E. 23 St., New York 10, is manufacturing two new types of vacuum pouches and has developed new printing techniques for them. Printovac MSP is composed of coated Mylar polyester film and an adhesive which is laminated to 150- or 200-gauge polyethylene. It is recommended for vacuum packaging all types of air-sensitive products such as meats, cheese and similar products that exceed 1 in. thickness when the package is laid flat. Extensive laboratory research has been conducted in an attempt to find a material which would restrain greening of frankfurters. Results have shown that at various relative humidities a direct relationship exists between the greening and

Kodapak Sheet

Kodapak is a trademark

to make this
safer, surer
for everyone!

Syringes packaged for MacGregor Instrument Co., Needham, Mass. by William A. Crook Company, Watertown, Mass.

Critical merchandise—hypodermic syringes! In fact, breakage was a very serious problem with one manufacturer until he started packing his syringes in shock-absorbing cradles of tough, crystal-clear Kodapak Sheet.

Most grateful were the hospital users. Now when a nurse opens a dozen package, she knows she has 12 new syringes ready for the sterilizer.

The packager was pleased, too. Uniform, stable, Kodapak Sheet draws without blushing. Each sheet produces its specified quota . . . turns in maximum profit.

For full information about Kodapak Sheet—call our representative or write for literature.

Cellulose Products Division
EASTMAN KODAK COMPANY, Rochester 4, N. Y.
MAKES GOOD MERCHANDISE SELL BETTER

Sales Offices: New York, Chicago, Atlanta. Sales Representatives: Cleveland, Philadelphia, Providence. Distributors: San Francisco, Los Angeles, Portland, Seattle (Wilson & Geo. Meyer & Co.); Toronto, Montreal (Paper Sales, Ltd.).

For mix-it-yourself paints

ALCOA'S HEADLESS WONDER

This neckless tube was designed to fill a special requirement for the pigment industry. Needed was a tube capable of dispensing every last measured drop of its contents. This was vital if mix-it-yourself consumers were to arrive at exactly the color tones they sought. Result: this blind-end tube. The consumer snips off the entire end . . . and all the pigment dispenses readily. It would be usable for many other products, too.

The "headless wonder" is a special Alcoa® Tube, designed to do a special job. Alcoa makes a number of types of standard conventional tubes. Most of them have necks and wear caps. One of them probably will package your product in great style. If not, Alcoa stands ready to design a tube that will.

Aluminum Company of America
1711-A Alcoa Building, Pittsburgh 19, Pa.
We are interested in packaging _____ in Alcoa Tubes. Please have an Alcoa salesman contact us.

Name _____
Firm _____
Street Address _____
City and State _____

Your Guide to the Best in Aluminum Value ...

Equipment and materials

[*Continued from page 160*]

the film's gas transmission rate. Printovac MSP reportedly was found to increase store life about three times when compared with conventional poly-cello laminations. The rotogravure process for tone and line printing on MSP is said to permit intricate art work or kodachrome. Printovac CSP is a coated cellophane adhesive laminated to polyethylene. It is suggested for packaging sliced cheese, meats, cold cuts and other products which are less than 1 in. thick when the package is laid flat. Printing is done in rotogravure. Meat packers using Printovac include Merkel, Inc., and Ideal Provision Co. for frankfurters; and Eagle Brand Products, Inc., for beef knockwurst and pastrami.

Low-cost deluxe polyethylene containers

One-piece polyethylene containers that are said to provide low-cost deluxe packaging with good re-use value have been announced by Werner Mfg. Co., 4401 First Ave., Lyons, Ill. They resist repeated flexing of the hinges, according to the manufacturer, who reports that important production savings are realized because the entire box—base, cover, hinges and fastener—is molded as a unit in one operation. Containers can be supplied in standard sizes or made to fit any requirements. Partitions can be furnished and a large variety of colors is offered. It is claimed that a rich brown or tan color together with the soft, flexible feeling of the material makes the new polyethylene container closely resemble leather.

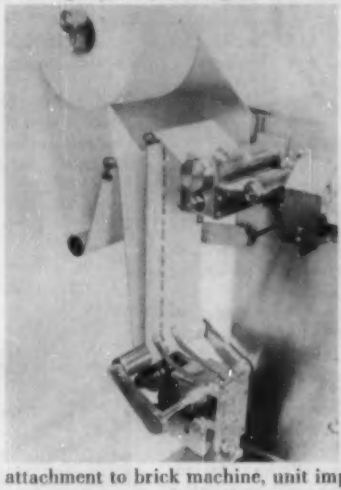
Colorful plastic for cottage-cheese

Standard-sized 1-lb. cottage-cheese containers, injection molded of a combination of Styron 475 and Styron 480, Dow Chemical Co.'s new high-impact polystyrenes, are now available in green, yellow, red, coral and blue from Bopp-Decker Plastics, Inc., Clawson, Mich. Because they have no false bottoms, the new "Yankee Cups" are said to effect a 20% savings in space at the plant, in transit and in the dairy case.

Collapsible wooden shipping containers

A completely collapsible hardwood plywood shipping container with sides flexibly pre-joined for speedier assembly has been developed by the Atlas Plywood Corp., 1432 Statler Office Bldg., Boston 16. The new Ply-Bound containers, which are stored flat and are squared up when ready for use, are pre-joined at the seams by wire bands and cleats. After the product to be shipped has been bolted to a base, the squared-up container is slipped over the unit. Closure is completed by driving nails or staples through the top and bottom of the container.

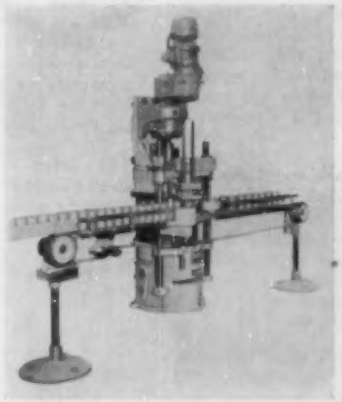
Flexographic printing for ice cream wraps



A miniature, automatic, flexographic printing unit that imprints the flavors and the brand names on the ice cream brick wrappers during the packaging operation was announced by Adolph Gottscho, Inc., Hillside 5, N. J., makers of automatic code-dating and imprinting machines. Designed for easy attachment to brick machine, unit imprints paper wrap as it is fed from the roll just prior to being cut and wrapped around the brick.

Fast, automatic double seamer

Bottoms and tops are put on round fibre cans by a new automatic double seamer announced by Potter & Johnston Co., Pawtucket, R. I., at speeds ranging from 100 to 400 cans per min. The machine accommodates any can heights from 3 to 8 in. and accurate change-over reportedly can be made within minutes. The continuous, uninterrupted operation without jamming or spilling is said to be insured by positive synchronization of intake and discharge star wheels.



New beer can process protects flavor

A new shock-resistant lubricant protects the lining of beer cans in the critical shoulder area against abrasions where the can ends are rolled onto can bodies under great pressure. American Can Co., 100 Park Ave. New York 17, developed the new compound, Cerafilm "Shoulder Guard," which is said to be wholly inert to beer, give longer shelf life and improve protection to the quality of the product.

Plants and people

Beginning this month, the **Monsanto Chemical Co.**'s Plastics Div. will join forces through a distributorship agreement with **Plax Corp.**, Hartford, Conn., to develop and expand U. S. markets for Plax's Polyflex 100 film and sheeting. It is described as an unusual marketing idea whereby Plax can supplement its own sales and development activities with the resources of Monsanto's large organization while Monsanto can expand the range of products it offers to its many customers. Monsanto will enlarge its present sales facilities to handle Polyflex as well as its own plastic packaging materials.

Thorn

A. K. **Thorn** formerly manager of American Management Assn.'s packaging division, has been named western regional sales manager for Plax.

Dairypak, Inc., Cleveland, Ohio, recently purchased all the common capital stock of **The Butler Paper Products Co.**, Toledo, Ohio. **Clarke Marion**, president of Dairypak, said that Butler Paper would continue to operate as a separate company and no changes were contemplated in policy or personnel.

Recently appointed exclusive U. S. sales agent for **Jagenberg-Werke** of West Germany, **Potdevin International Ltd.**, Teterboro, N.J., will distribute and service three types of machines. According to the company, the folding-box gluer, varnishing and coating machine, and the bundling machine will complement Potdevin's own line of converting machinery.

At **United Shoe Machinery Corp.**, Boston, Mass., **Robert McA. Lloyd** has been appointed manager of the industrial sales division's newly established packaging department. The department markets Thermogrip industrial adhesives and applying equipment and Boxmaster carton-forming machines.

The box division of **Warner Bros. Co.**, Bridgeport, Conn., has appointed **Edward C. Kozlowski** as director of packaging development. In this newly created position, Mr. Kozlowski will provide specialized package development service to customers which will emphasize creative design.

The first bulk shipment of Freon produced on the west coast, 37,000 pounds, was delivered from **Du Pont Co.**'s new multimillion dollar plant at Antioch, Calif., last month, to the premises of **G. Barr & Co.**, Los Angeles. Antioch is the fourth plant producing Freon compounds in the U. S.

Du Pont's "Kinetic" chemicals division has appointed **Robert Wright, Jr.**, as technical sales representative of Freon refrigerants and aerosol propellents in the St. Louis area. Mr. Wright replaces **Thomas J. Amann** who resigned. **John H. Grant** has been named sales correspondent in the New York district for the same commodities.

The Toledo division of **The Ottawa River Paper Co.** has appointed three new sales packaging engineers. **William J. Brown** is assigned to the greater Cleveland area, **Claude F. Glick** to southern Michigan, and **William M. Robertson, Jr.**, to northwestern Ohio.

Edwin H. Schmitz has been named vice president for sales at **Wrap-King Corp.** of Holyoke, a subsidiary of **Crompton & Knowles Corp.**, Worcester, Mass. Prior to his present appointment, Mr. Schmitz was in the management consulting field with Edwin H. Schmitz & Son, in Providence. Previously, he was general sales manager for Standard Knapp Div. of Emhart Mfg. Co., Portland, Conn. While with Standard Knapp, Mr. Schmitz was president of the Packaging Machinery Mfrs. Institute.

Schmitz

Aer-O-Fil Engineering Corp., 1188 Main St., Bridgeport, Conn., and 837 Great Plain Ave., Needham, Mass., has been appointed exclusive eastern sales representative for **Alpha Engineering & Machine Works, Inc.**, Mount Prospect, Ill.

The Arvey Corp., Chicago, recently elected **Scott Campbell** a vice president. Formerly general manager of the four product divisions in Chicago, Mr. Campbell joined the corporation in 1955. He had been previously with McGraw Electric Co.

An agreement has been approved by the board of directors of the **Mead Corp.** Dayton, Ohio, providing for the affiliation of **Atlanta Paper Co.**, Atlanta, Ga., with Mead as a wholly owned subsidiary. The transaction purports to strengthen Mead's position in the paperboard industry by using Mead kraft liner board from adjacent Macon and Rome plants for converting operations in the Atlanta plant. Mead is extending its line of products to include folding boxes, multiple unit packaging and carry home cartons. Atlanta Paper, continuing under its same management and policies, will benefit through Mead's resources in finance, research and development, and raw material.

President **Henry B. Katz** of **Greenwood Packaging Supply Co.** and **Jet-Pak, Inc.**, Newark, N.J., has completed negotiations with the **Edwin H. Fitler Co.** of Philadelphia, wholly owned subsidiary of **Columbian Rope Co.**, Auburn, N.Y., giving Fitler a five-year option to purchase a majority of stock in both companies. Fitler will help to expand both companies by supplying adequate working capital.

A new sales office and warehouse has been opened for Jet-Pak in Chicago, at 2520 N. Pulaski Rd., with **Robert J. Cramer** in charge.

The Cadillac Plastic & Chemical Co., 15111 Second Ave., Detroit, Mich., now distributes rubber-modified styrene and linear polyethylene sheets for Campco Div., **Chicago Molded Products Corp.**; also decorative cast acrylic sheets for the Acrylite Div. of **Wasco Products, Inc.** Cadillac will maintain national coverage for both lines.

A new design firm has evolved from the merger of **Robert I. Goldberg Associates** and the **E. Leonard Koppel Design Organization.** Known as **Associated Industrial Designers**, the new set-up is at 284 Fifth Ave., New York.

The Riegel Paper Corp., New York, has appointed **Aaron P. Mitchell** senior vice president for sales. His former position as vice president and general sales manager has been filled by **Frederick S. Leinbach.** Mr. Mitchell, who joined the corporation in 1923, was previously secretary of the organization. Prior to his present appointment, Mr. Leinbach was vice president and assistant general sales manager.

Mitchell

Leinbach

The Bridgeport Brass Co., Bridgeport, Conn., has appointed **Kuhns Brokerage Co.**, 301 S. Wichita Ave., Wichita, Kan., to represent its aerosol division.

At its Kraft Center, Pensacola, Fla., the **St. Regis Paper Co.** maintains a laboratory for the development and manufacture of adhesives to be used in all its bag factories. Continuous research and actual testing are carried on and technical advice is given to St. Regis licensees. Presently limited quantities of adhesive are sold to bag and paper customers, including label adhesive.

Rhinelander Paper Co., Rhinelander, Wis., a subsidiary of St. Regis, announces the resignation of **Folke Becker** as general manager. Mr. Becker came to

"The box gives extra mileage, too!"

Your product gets extra brand identity when your shipping box strongly resembles your unit package. Want family packaging ideas? Better see H & D.

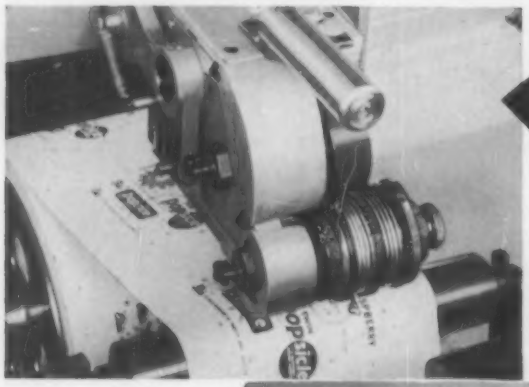
HINDE & DAUCH

A Subsidiary of West Virginia Pulp and Paper Company

AUTHORITY ON PACKAGING • SANDUSKY, OHIO
14 FACTORIES • 42 SALES OFFICES

New Code-Dating and Imprinting Attachments

combine compactness and easy-installation features with precision printing performance



For Wrapping Machines

Model "700" ROLAPRINTER® machine...compact wrapping machine attachment that imprints code-dates, flavors, weights, colors, brands, etc., on package wraps of cellophane, polyethylene, glassine, foil, paper. Makes accurately positioned imprint anywhere on wrap, adjusts for any cut-off length.

For Conveyor Attachment

TB MARKOCODER® . . portable, space saving unit that imprints codes on bottoms of jars, bottles, cans, etc. Imprint surface may be flat or concave, flush or recessed.

For Conveyor or Case Sealer Attachment

Model "100" ROLACODER machine . . . friction operated, makes single accurate "spot" imprint of brand names, varieties, code-dates, lot numbers on one side or top of containers as they travel on conveyors or through case-sealer. Prints from 1 to 5 lines of copy up to 12" long from easily interchangeable rubber type.

These new units are fully automatic, register imprints accurately; operate at high speeds to synchronize with packaging machine or conveyor.

Write for descriptive illustrated bulletin, specifying model in which you are interested.

Gottscho

ADOLPH GOTTSCHO, INC.

Dept. A, Hillside 5, N. J.

In Canada: RICHARDSON AGENCIES, LTD., Toronto & Montreal

Automatic Production-Line
CODING, MARKING
IMPRINTING
MACHINES

Plants and people

the company in 1926. He was elected president in 1935 and has been chairman of the board since 1954. Mr. Becker will continue as board chairman of Rhinelander, as president of the R-W Paper Co., Longview, Washington, and as a director of St. Regis. He will serve as a consultant to the entire St. Regis organization. **Benton R. Cancell**, president of Rhinelander since 1954, will assume the additional duties of general manager.

The board of directors of Crown Zellerbach Corp., San Francisco, recently elected **Alfred B. Layton** president to fill the position vacated by **J. D. Zellerbach** who is now chairman of the board. **Reed O. Hunt** replaces **H. L. Zellerbach** as executive vice president. **Truman W. Collins**, president of the Collins Pine Co., Portland, Ore., and a director of Crown Zellerbach, was elected a member of the executive committee replacing **Alexander R. Heron** who has retired. Mr. Layton, formerly vice president for administration and finance, has been with the company for 32 years in many and various capacities. Mr. Hunt, who has had a varied 29-year career with Crown Zellerbach, had been vice president of operations since 1954.

Layton Hunt

David J. Benjamin has taken over the responsibilities of general manager of the Western-Waxide Specialty Packaging Div. of Crown Zellerbach, San Leandro, Calif. He will also function as a member of the senior company's management committee. Mr. Benjamin was formerly president of the Waxide Paper Co., Kansas City, which was acquired by the corporation last year. **C. Vernon Page** has been promoted to the position of sales manager at the Los Angeles office of Western-Waxide. Mr. Page, who has been with the company since 1950, was formerly frozen food sales supervisor for the northwest territory and more recently, district sales manager, frozen food products, for the 22 western states. Mr. Page replaces **Jack McCann** who has resigned to establish his own business with former sales representative, **John Giddens**.

Page

Morgan W. Rider has been named assistant director of the technical division of **Olin Mathieson Chemical Corp.**, New York. The division is located in New Haven, Conn., where Mr. Rider will be responsible for the pilot opera-

LITHOGRAPHED CARTONS BY MILPRINT

Tops in any packaging poll, Milprint lithographed cartons win shoppers' votes with bright, precision-printed designs and mouth-watering, full-color illustrations. Over half a century's packaging experience, the country's largest package designing staff, and complete production facilities to quality-control your job from rough layout to plates, press run and die-cutting—combine to form a sales platform for packages your customers can't resist!

To nominate your products for public favor, with the widest variety of packaging materials and printing processes available anywhere, call your Milprint man—first!

Printed Cellophane • Pliofilm • Polyethylene • Saran • Acetate • Glassine • Vitafilm • Foils • Laminations • Folding Cartons • Bags • Lithographed Displays • Printed Promotional Material

Milprint* INC
PACKAGING MATERIALS

General Offices, Milwaukee, Wisconsin
Sales Offices in Principal Cities

*Reg. U.S. Pat. Off.

This insert lithographed by milprint, Inc.

If it's a question of

various sizes

BATTLE CREEK

has the answer

Illustrated is the Battle Creek Model 47, precision engineered to handle packages from 5½" to 12½" long, 2" to 7½" wide and 1" to 4½" high at speeds up to 75 per minute.

Battle Creek versatility permits wrapping of dozens of different sizes on a single machine with as little as 10 minutes changeover time. *Continuous Flow*® helps make every package an impulse selling showcase, and Battle Creek's careful engineering gives you efficient, quick-change performance and package handling at lowest cost.

LET US WRAP YOUR PRODUCT. Send us samples of your products (or if they are perishable, describe the packages and sizes) and tell us the kind of overwrapping you require. We will either wrap and return them promptly with our recommendations, or give you our best suggestions in answer to your inquiry. If you have specific questions, we would welcome a letter from you.

"*Continuous Flow*" *Packaging*

BATTLE CREEK
packaging machines, inc.
102 TWELFTH STREET, BATTLE CREEK, MICHIGAN

Plants and people

tions and technical product departments. He was previously with the nuclear fuel division.

Olin's aluminum division is constructing a plant to produce plain, corrugated and embossed aluminum sheets and coils, also plates, circles and blanks. The new facility, Omal Rolling Mill, Omal, Ohio, will be managed by **Harry E. Gude.**

Dennison Mfg. Co. of Framingham, Mass., has named **Howard C. Weeks** as assistant general merchandise manager. His former position of purchasing agent is being filled by **Ronald MacKenzie,** previously assistant purchasing agent. Mr. Weeks has been associated with Dennison for 28 years. **C. M. Hastings** is now merchandise manager for gummed and coated papers.

John F. Ovsik is now director of purchases for **Vulcan Containers, Inc.,** of Bellwood, Ill. He will buy the materials needed for manufacturing a wide variety of pails for the steel shipping container industry. Mr. Ovsik has been with the company for two years.

Wallace B. Tibbets has been named leader of the packaging division at **Bakelite Co.**'s product & process development laboratories, Bound Brook, N.J., where he was formerly in charge of the evaluation and consumer packaging group. Mr. Tibbets has worked for many years in the flexible packaging field and was previously associated with **E. I. du Pont de Nemours & Co.,** and with The Dobeckmun Co.

Tibbets

Among other recent appointments at **Bakelite** is that of **Dr. A. W. Downes** to the position of general manager of new resins and compounds. Dr. Downes was formerly associate director of development. **A. A. Boehm** is newly appointed manager of phenolics. He was production superintendent at the Bound Brook plant. **Dr. C. M. Blair, Jr.** has been named general manager—polyolefines. Dr. Blair formerly supervised Carbide & Carbon Chemicals Co., Seadrift, Tex. Former manager of the molding and extrusion department, **J. E. Brister** is now general manager—polystyrene. New general manager—vinyls is **R. D. Glenn** who formerly was assistant works manager for Carbide & Carbon Chemicals.

Floyd A. White, Jr. has been named sales manager of the southeastern region for **Vulcan Steel Container Co.** New sales manager for the southwestern region is **Charles B. Little** who will be responsible for sales in Louisiana, Texas, Arkansas, Oklahoma and southern Mis-

sissippi. Mr. White will cover Tennessee, Georgia, Virginia, Florida, and the Carolinas. Both men will headquarter at Vulcan's main office in Birmingham, Ala.

George E. Dyke, chairman of the board and president of Robert Gair Co., Inc. prior to that company's merger with **Continental Can Co., Inc.**, New York, has been elected vice chairman of the board of Continental. Two former senior vice presidents of Gair, **Raymond F. DeVoe** and **Norman F. Greenway**, and **Robert L. Fitts**, previously a Gair vice president, are three new vice presidents of Continental Can. Under the general supervision of Mr. Dyke, the activities of the Robert Gair Div., and Continental's paperboard and fibre drum divisions, will be administered. The three new vice presidents will exercise responsibility within the same general area.

Dyke

Kenneth H. Lillis has been named a packaging engineer for the Robert Gair Div. Before joining Continental, Mr. Lillis was a packaging engineer for Western Electric Co., Inc., Kearney, N.J., and previously for the Allcraft Container Corp., Harrison, N.J.

Lillis

Petersen

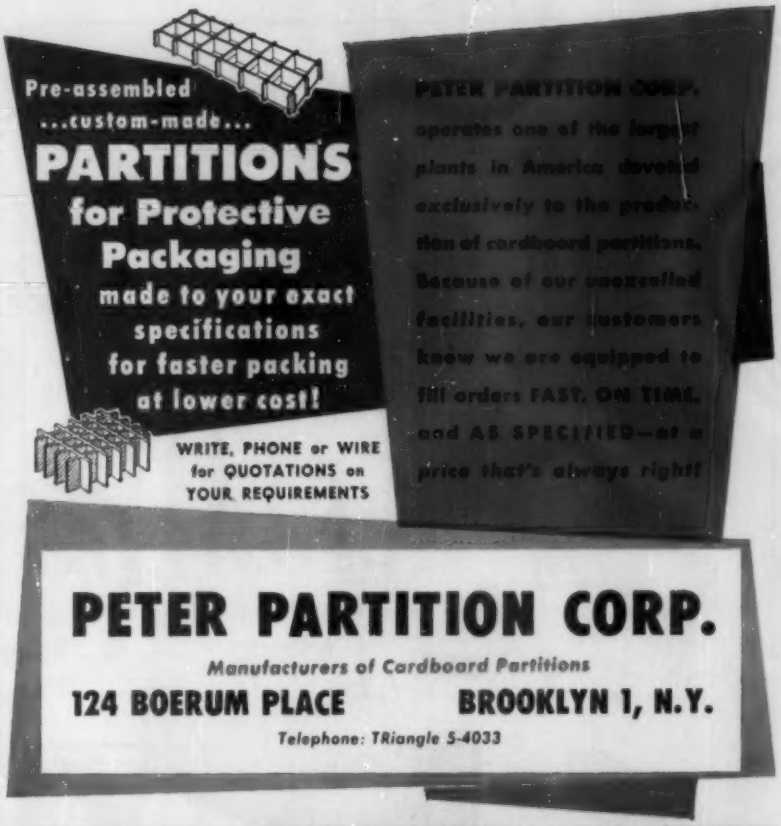
Continental's metal division announces the appointment of **Bruce R. Petersen** as sales manager for the beer and carbonated beverage cans. Mr. Petersen, who joined the company in 1947 as a sales representative, was district sales manager in Milwaukee previous to taking over his new duties. He has also served as staff assistant in the eastern division offices and as district sales manager in Boston. **T. J. Hughes** is now sales manager, general line for the eastern metal division of Continental. His former position as district sales manager for the Paterson, N.J., district, will be filled by **W. H. Palmer** who is presently assistant sales manager in the Florida district.

Lawrence

C. E. Lawrence is new district sales manager in Chicago for the Plastic Container Div. of Continental. He will handle sales from headquarters at 2930 N. Ashland Ave. Mr. Lawrence was formerly with Crown Cork & Seal Co.

Dr. E. J. Ripling is laboratory director of mechanical metallurgy at Continental's new Central Research & Engineering Div., Chicago. Dr. Ripling was asst. professor of metallurgy at Case Institute of Technology.

A new sales service office for the Bagpak Div., **International Paper Co.**, has been opened in Camden, Ark. **T. A. McCord** will manage the office at 121 Jefferson St., S.W. The new service is designed to coordinate the production of


Pre-assembled
...custom-made...
PARTITIONS
for Protective Packaging
made to your exact specifications for faster packing at lower cost!
WRITE, PHONE or WIRE for QUOTATIONS on YOUR REQUIREMENTS
PETER PARTITION CORP. operates one of the largest plants in America devoted exclusively to the production of cardboard partitions. Because of our unexcelled facilities, our customers know we are equipped to fill orders FAST, ON TIME, and AS SPECIFIED—at a price that's always right!
PETER PARTITION CORP.
Manufacturers of Cardboard Partitions
124 BOERUM PLACE BROOKLYN 1, N.Y.
Telephone: TRiangle 5-4033

100% PRODUCTION INCREASE FOR DISPLAY MAKER WHO SWITCHED FROM GLUE TO BOSTITCH STAPLES

Bostitch staples were so much faster than glue that this advertising display maker *doubled* his output.

And staples brought costs down so much that the company gets orders now where it couldn't compete at all before. Even odd sizes and shapes are easily fastened with staples.

Let a Bostitch Economy Man show you Bostitch staplers which will cut costs and speed carding or fastening in your plant.

Fasten it better and faster with

Look up "Bostitch" in your phone book or write Bostitch, 481 Mechanic St., Westerly, R.I.

BOSTITCH
STAPLERS AND STAPLES

CUT COST WITH SEALTITE

- Delivers a well settled, nicely squared bag at top, bottom and sides
- Pre-scored, double fold, uniformly glued seal keeps product in and dirt out
- Uses any standard make of gusseted bag — no royalties
- Seal readily opened, yet tamper-proof
- Seals 30 to 50 bags per minute
- Users report costs reduced up to $500.00 per month per machine

Write for complete information

CONSOLIDATED PACKAGING MACHINERY CORP.

1400 West Ave., Buffalo 13, N. Y.

Plants and people

sales orders between nationwide customers and producing plants in New Jersey, Louisiana and Alabama.

C. A. Byars is named national manager of feed bag sales with headquarters in Kansas City, Kan.

The creative art and design department of the **Schmidt Lithograph Co.**, San Francisco, announces the employment of **Mrs. Hazel Devoy** in the label and packaging division. Mrs. Devoy was previously with **Douglas Leigh, Inc.**, New York, and more recently was a free lance art director on the Pacific coast.

William H. Aiken has been promoted to the position of director of research and development at **The Gardner Board & Carton Co.**, Middletown, Ohio. Before joining Gardner in 1952 as technical director, Mr. Aiken had held the post of assistant manager of the chemical division of the Goodyear Tire & Rubber Co. He has also authored several articles for MODERN PACKAGING'S technical section.

Aiken

The Brooks Co., Inc., Springfield, Mass., has been purchased by Gardner. The newly acquired company manufactures cartons and display containers and does color lithography. Its new title will be **Gardner-Brooks, Inc.** Area of operation includes New England and parts of New York and New Jersey. **J. Loring Brooks, Jr.** will continue as president with other members of the management retaining their original positions.

A $5 million construction program will be launched this month by the **Crossett Co.**, Crossett, Ark. Slated to modernize and expand facilities at Crossett Paper Mills, plans include expansion and improved efficiency of chemical recovery units, pulp storage and wood handling at the kraft paper mill.

New and enlarged quarters at 120 E. 56th St., New York, have been taken over by **Raymond Spilman**, the industrial designer.

Howard W. Hall has recently joined the **Stromberg-Carlson Co.**, a division of **General Dynamics Corp.**, Rochester, N.Y., as packaging engineer for the telecommunications division.

New duties for **Charles A. W. Phinney**, as assistant sales manager of Sure-Hold Div., **Nashua Corp.**, Nashua, N.H., will include administration of sales programs, sales direction and field sales assignments. Mr. Phinney, who was promoted from sales administrator, joined the corporation in 1953.

In the technical department of Nashua three appointments were announced. Chief chemist, **Austin E. Davis**, was named director of laboratories,

Spout assembly is held in inverted position by screw-on cover cap. All fittings are recessed. Flat cover surface speeds stacking, saves storage space.

NEW

J&L Utility Farm Can with self-storage spout

HOW REVERSIBLE SPOUT ASSEMBLY WORKS

To pour, you simply unscrew and remove cap and protective metal seal. Spout is lifted out and placed in position for pouring. As illustrated above, two openings in the spout provide choice of fast or slow pouring speeds. For slow pouring, simply remove the small cap on the first opening. Spout is fastened with the screw-down cap you originally removed from the cover. Entire operation is completed in seconds.

- Large aperture for easy, fast refilling.
- Ideal for nesting and stacking. Saves storage space.
- No shipping cartons required.
- Welded wire handle facilitates carrying.

Write today for information on how new J&L all-purpose shipping and storage pail saves time and money.

Jones & Laughlin
STEEL CORPORATION
CONTAINER DIVISION
405 Lexington Avenue • New York 17, New York

J&L STEEL

ABSOLUTELY ACCURATE 2 VALVE FILLER

Elgin EARNS ITS WAY

"TWIN"

The Perfect Filler for Glass, Plastic and Tin containers. Accurate Ingredient Fill for Aerosol Packing

The Elgin "Twin" is a rapid, faultless producer. This Filler features a unique method for controlling the piston stroke, resulting in two speeds: high-speed on cylinder filling, low-speed on container filling. Easily adapted to a broad range of products and container sizes, the Elgin "Twin" insures an accuracy of fill you can rely on for either liquid or viscous products. Easily cleaned —ideal for light or heavy packs and ideal for aerosol packing—the Elgin "Twin" earns its way in labor and product savings!

PACKAGING MACHINERY MANUFACTURERS INSTITUTE PMMI

Write for complete literature Address Dept. M71

ELGIN MANUFACTURING COMPANY

200 Brook Street • Elgin, Illinois

on *any* PACKAGING MACHINE there is a place where IMS SILICONE FLUID SPRAY WILL CUT YOUR COST

Anywhere Any Packaging Material Tends to Stick . .

IMS SILICONE SPRAY will cut your scrap and stoppage rate—Save You Money! Try it on your packaging line—you'll see why almost overnight this amazing anti-stick material has become a necessity in the modern high-speed packaging field!

PRICES: $ 2.00 Per Sample Can
$ 18.00 Per Unbroken Dozen
$197.40 Per Unbroken Gross

Delivery FREE Anywhere in the U. S. A.

INJECTION MOLDERS SUPPLY CO.
3514 Lee Road Cleveland 20, Ohio
WYoming 1-1424

Still lower prices on larger orders shipped in one gross lots on any schedule you request.

Plants and people

Willam L. Lawton was appointed chief chemist in charge of research and development, and **Willam Y. Winey** was named chief chemist in charge of waxing and printing section.

Thomas B. Buchanan has been appointed assistant general sales manager for **Sinclair and Valentine Co.**, New York, manufacturers of printing inks. **Howard C. Wikoff** replaces Mr. Buchanan as manager of the company's Philadelphia branch. Mr. Wikoff was promoted from the sales staff.

Buchanan Wikoff

George Jillich, present manager of the Chicago branch, has been named manager of a newly created district incorporating the Chicago, Detroit and Kalamazoo branches. Also included are the sales districts of Milwaukee, Minneapolis and Indianapolis.

Bush Federal Ink & Roller Co., Ltd., Toronto, Canada, has been acquired by Sinclair & Valentine. **Walter Kitchen**, president of Sinclair & Valentine Co. of Canada, Ltd., will continue operation of Bush Federal as a division of the S&V organization. **W. H. Merry**, president, and other officials and employees will continue in their present positions.

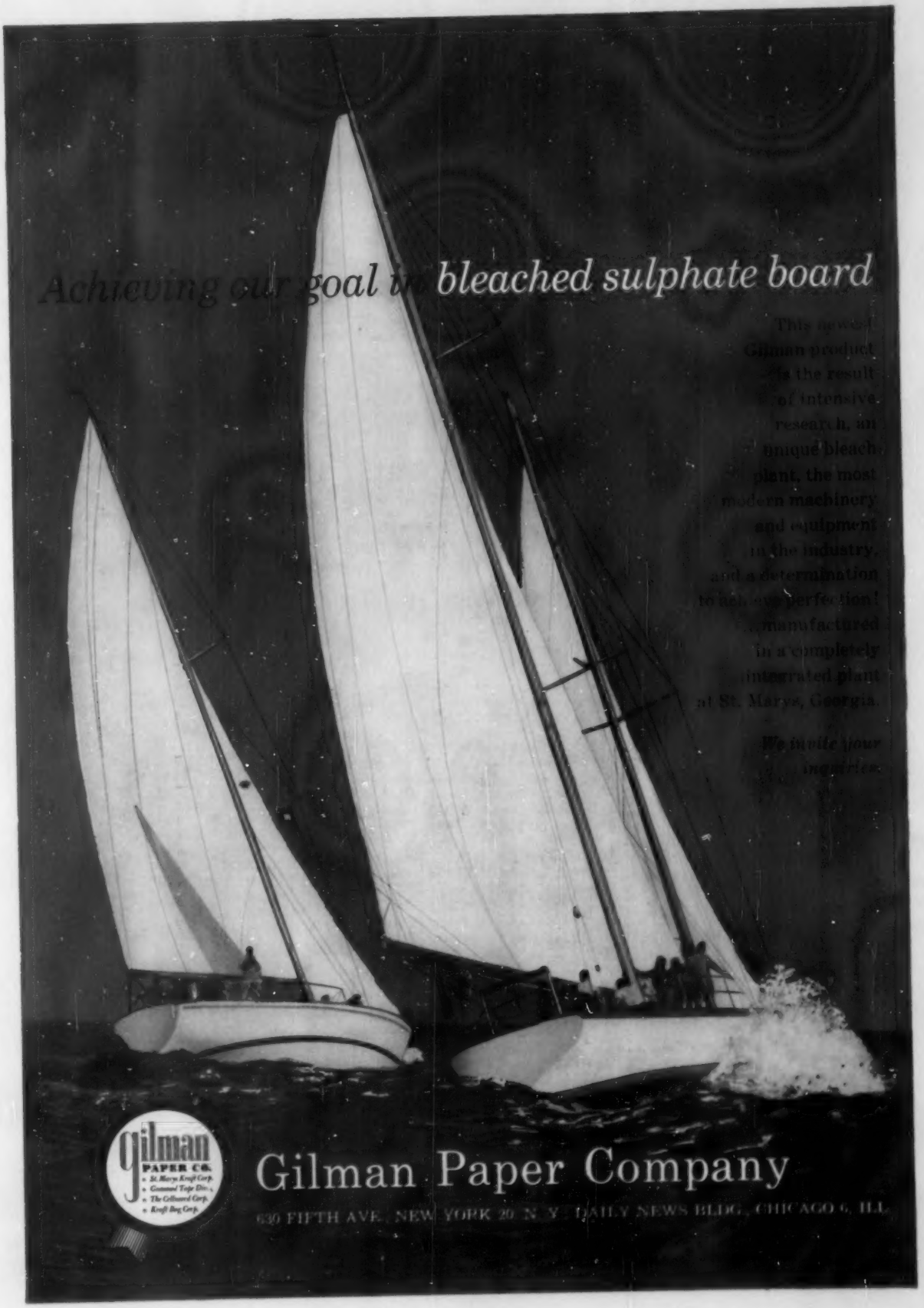
Harold Ottesen has left his position as manager of the **Owens-Illinois Glass Co.'s** Clarion, Pa. plant, to take up the duties of manager of the company's glass container manufacturing plant under construction in Atlanta, Ga. He has been replaced by D. B. Adams. Mr. Ottesen has been with Owens-Illinois since 1936.

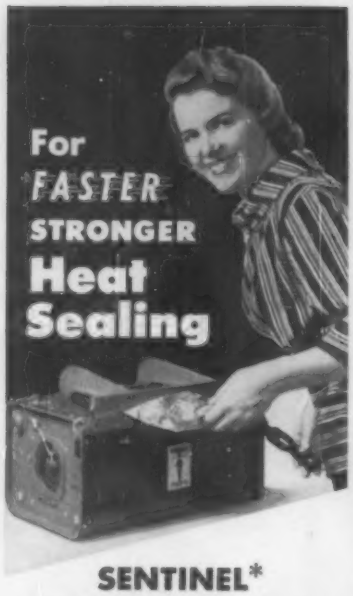
Henry S. Wade, vice president of Owens-Illinois, has been elected president of California Mfrs. Assn. Mr. Wade has been with the company for 31 years and is general manager of the Pacific coast division.

Having completed the general sales training program, **Charles H. Pietsch** has been promoted to salesman. He will operate from Hartford, Conn.

John H. Wright is now with the Market Development Dept. of **American Viscose Corp.'s** Film Div. in Philadelphia. He will assist in the package development laboratory.

Minnesota Mining & Mfg. Co., St. Paul, has promoted **Richard T. Flaherty** to supervisor for Scotchpak films, products control department, industrial trades tape division. Mr. Flaherty joined MMM in 1953 as a technical service engineer. Also in the industrial trades tape


Achieving our goal in bleached sulphate board
This newest Gilman product is the result of intensive research, an unique bleach plant, the most modern machinery and equipment in the industry, and a determination to achieve perfection! ...manufactured in a completely integrated plant at St. Marys, Georgia.
We invite your inquiries.
Gilman PAPER CO.
St. Marys Kraft Corp.
Gummed Tape Div.
The Celluseal Corp.
Kraft Bag Corp.
Gilman Paper Company
630 FIFTH AVE., NEW YORK 20, N. Y. DAILY NEWS BLDG., CHICAGO 6, ILL.



SENTINEL*
PACEMAKER

The Sentinel Pacemaker, made by pioneers in heat sealing, is a thermal impulse sealing method, designed and engineered to give you these advantages:

- Light Weight, compactness, low cost
- Requires no skill
- Insures a safe, FAST and positive seal with ease
- Precision automatic controls for correct pressure, heat dwell time and COOLING dwell time
- Seals varied thicknesses of Polyethelene, Saran, Pliofilm, MYLAR, Acetate and Vinyl, etc
- No fussy installation. Just plug in and start sealing
- Economical — draws current only during seconds when heating element is energized
- Simple, rugged, no service troubles
- Will soon pay for itself in faster production, improved seals

Sizes: 9, 13, 25 and 45 inches sealing area. Hand or foot operated.

For heavy-duty, large dimension jobs, the Sentinel High Speed Band Rotary Sealer — (Continuous Motion) and the Sentinel Jaw Type Sealer. Sentinel equipment meets U. S. Military Specifications.

Write for detailed literature

PACKAGING INDUSTRIES
151 Pine Street Montclair, N. J.

*Trademark

Please rush me detailed literature on "MP"
☐ Pacemaker Sealer ☐ Jaw Type
☐ High Speed Band Rotary
Name_____
Company name_____
Address_____
City_____ State_____

Plants and people

division, **James B. Gergen** has been promoted to the post of assistant manager for the new products, research and business development department. Mr. Gergen has been with MMM since 1949.

A new consultant firm has been formed to meet the needs of the expanding aerosol industry. **Lodes Aerosol Consultants, Inc.**, 730 Fifth Ave., New York, with **Frederick G. Lodes** as president, will devote itself exclusively to the problems of pressurized packaging. The new group will serve the industry with technical assistance, consultations on the foreign market and provide surveys for proposed business acquisitions. Mr. Lodes recently resigned from the Precision Valve Corp., Yonkers, N.Y., where he was an officer and director, to start the aerosol consulting venture.

Lodes

W. D. Regnier, formerly manager of customer service for the crown & closure division of **Crown Cork & Seal Co., Inc.**, has become division manager of sales of the machinery division, succeeding **Ralph E. Costa** who recently resigned. Mr. Regnier has been both project engineer and sales manager of packaging machinery.

Donald A. Washburn will represent the **Black-Clawson Co., Dilts Div., Fulton, N.Y.**, as executive sales engineer in Wisconsin, Minnesota, Illinois, Missouri and western Indiana. He will locate at 894 Grove St., Glencoe, Ill.

Edward W. Ward, general sales manager, and **Edward H. Miller**, manager of sales development, both with the Plastics Div. of **Celanese Corp. of America**, were honored for their pioneer service with the division and its predecessor the Celluloid Mfg. Co., which became the present Plastics Div. in 1941. Mr. Ward has been general sales manager of the plastics division since 1940 before which he worked in the sales departments of various divisions, including one period when he was packaging division sales director. Mr. Miller was assistant treasurer before assuming his present post with the organization.

Ward

At a meeting of the board of directors of **The Flexographic Corp.**, Mason, Ohio, **Carl Ireton** was elected president. Other officers elected were, **G. E. Bourne** to post of vice president in charge of sales, **Joseph Hockzema** to post of vice president in charge of pro-

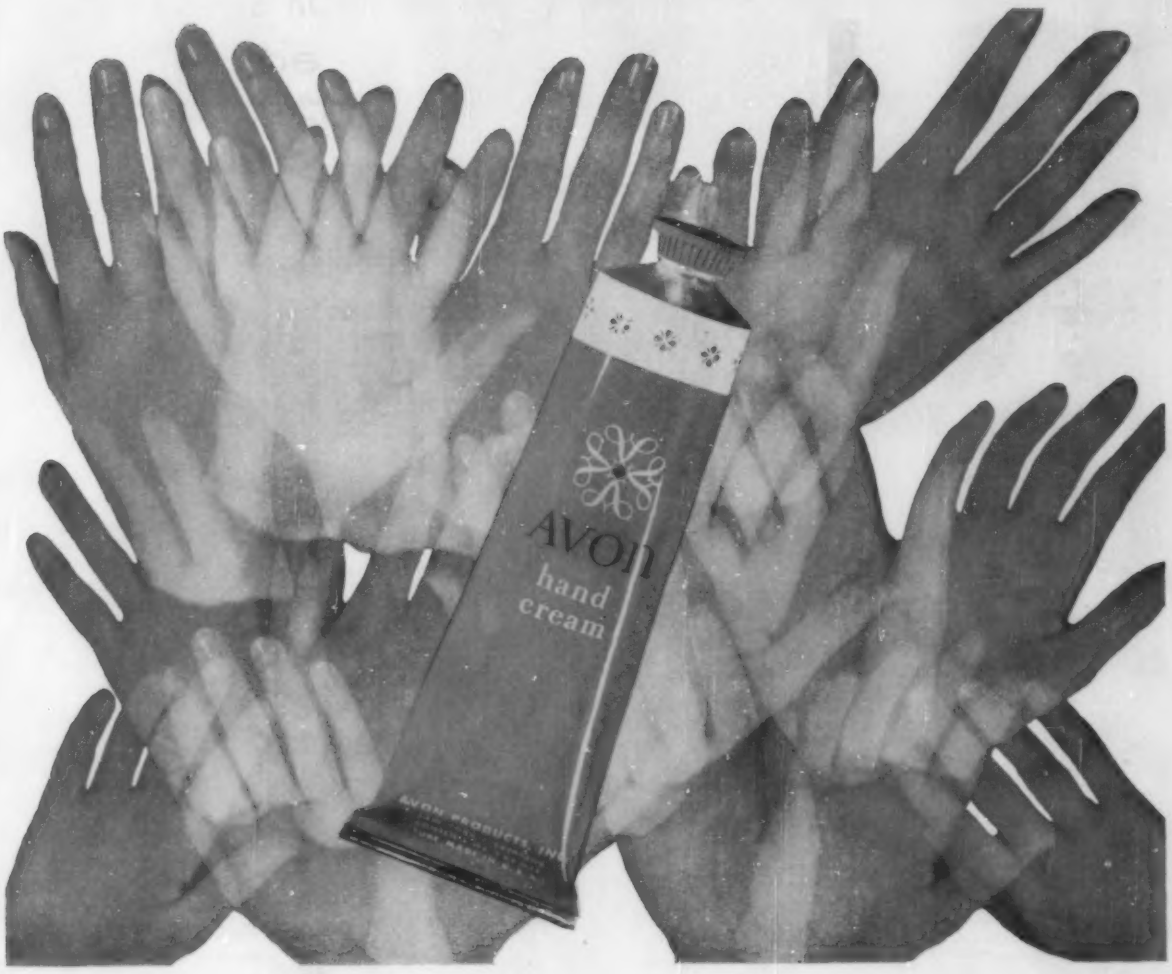
Fired-On Screening

keyed to the product...

Product packaging can pose many problems.
Example: Max Factor's "Secret Key."
Problem: Separation of liquids in the bottle.
Ceragraphic Solution:
A handsome, brilliant ceramic coating that completely conceals while it enhances. It's Ceragraphic's exclusive Ceracoat process. Ceragraphic's know-how and experience has made it a leader in the field of fired-on screening. Whether your particular packaging problems are physical or financial, Ceragraphic's representative will be happy to discuss them with you.

from design of the container, to design on the container.

CERAGRAPHIC, INC.
171 Newman St., Hackensack, New Jersey
Tel. HUbbard 9-8260



Created by Avon to make feminine hands lovelier

Tubes by Wheeling for Product Protection, Consumer Attraction

The hands of millions of American women are kept velvety soft, luxuriously lovely with *Avon Hand Cream*, one of the many fine cosmetics created and sold by Avon Products, Inc. The Avon quality standards are assured protection through tubes produced by Wheeling's packaging engineers, whose meticulous laboratory analyses established product and tube compatibility.

Avon is one of the many proud names served by Wheeling. We would like to add your name to this imposing list of those who prefer Wheeling Tubes for their products.

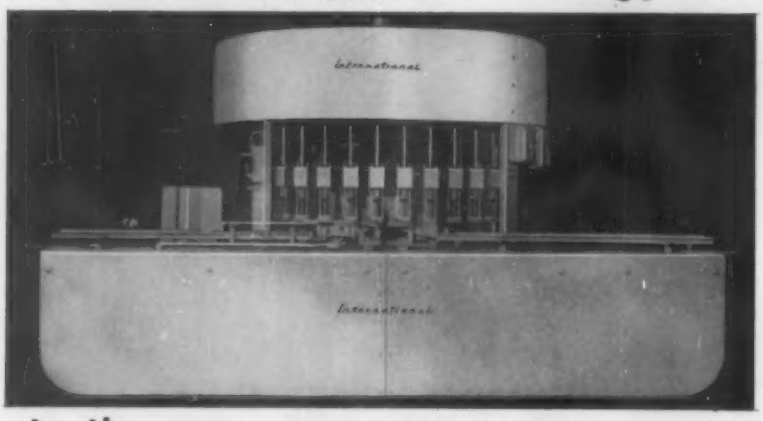
WHEELING STAMPING CO. WHEELING, W. VA.

Consult Your Classified 'Phone Directory for Sales and Service in These Leading Cities:

New York • Boston • Philadelphia • Chicago • Cleveland • Cincinnati • St. Louis • Minneapolis • Los Angeles

• *Aluminum, Tin and Lead Collapsible Tubes* • *Molded Caps for Tubes and Bottles* • *Plastics Specialties*

time to make that change



to the new INTERNATIONAL SERIES 50-51 . . . the most versatile ROTARY LIQUID FILLER made!

300 28MM quart containers per minute filling bleach or other free-flowing liquid on 36-head rotary.

Rotary liquid fillers available with 24, 36, 48 or 72 filling valves with speeds up to 600 CPM. Step forward in automation. Replace outmoded filling machinery with an International rotary to increase output on a wide variety of liquids including heavy oil, pharmaceuticals, chemicals, still beverages and food products.

• *Fluid drive* • *Non-marring worm feed* • *Automatic one-shot lubrication* • *Cam action heads* • *New type non-drip Curefill valves add to versatility in handling glass, polyethylene, and round and rectangular tin on the same machine* • *Single crank adjustment for fine fill height while machine is in operation* • *Single crank adjustment for different size containers* • *Three machines in one—straight gravity, straight vacuum or combination gravity-vacuum by merely turning a dial.*

IFM

A master engineered machine that will increase production on any liquid filling line. Long lasting. Easy to operate. Low in maintenance cost.

INTERNATIONAL FILLING MACHINE CORPORATION

Petersburg, Virginia, U.S.A.

Plants and people

duction and **Thomas Ryan** as secretary-treasurer. Formerly with the Specialty Papers Co., Dayton, Ohio, Mr. Ireton has been in the packaging field for 26 years. Mr. Bourne also was with the Specialty Papers Co. prior to his present appointment.

Western sales manager for **Automatic Molding Machine Co.**, Los Angeles, is newly-appointed **George B. Croft.** Previously with the Nathan R. Smith Mfg. Co., S. Pasadena, Mr. Croft will organize sales for all states west of the Mississippi.

New sales manager of the Chicago division of **Fort Wayne Corrugated Paper Co.**, is **Thomas E. Kigin.** He will locate at 4500 S. Kolin Ave., Chicago. Previously, Mr. Kigin was assistant sales manager of the division. He has been with the Fort Wayne, Ind., company for five years.

Walter H. Loewy is now in charge of the chemical research laboratory of **Kleen-Stik Products, Inc.**, Chicago. Mr. Loewy has been engaged in the paper and film converting fields for the past 30 years. He will conduct research into product development and quality control.

Saunders

Miss Mary Saunders has recently joined the research department of the **Peterson Filling & Packaging Co.**, Danville, Ill. From 1955 until her present appointment, Miss Saunders was with the Liberty Powder Co., a subsidiary of Olin Mathieson. Previously, she had had ten years experience as an analytical and development chemist with E. I. du Pont de Nemours Co., Inc. in this company's pigments research and film department.

The year 1957 marks the 80th anniversary of the **Hamersley Mfg. Co.**, papermakers of Garfield, N.J. The firm has been owned by one family continuously since its founding. **Arnold G. Hamersley** is its current president. Over this period, it has been actively involved in the development of protective paper for all types of food and perishable products. **H. A. Smith** and **H. Lang** are vice presidents; **A. Schwab** is managing director; **S. C. Fairbanks** directs research and **A. R. Melker** handles sales promotion.

Ed Burgers, Jr., is now eastern sales manager at **Kraft Bag Corp.** Mr. Burgers was formerly sales promotion manager. He will operate from the home office at 630 Fifth Ave., New York. **Ted**

MERCURY MACHINES—PACESETTERS FOR THE FOLDING CARTON INDUSTRY

SINCE 1933

A Symbol of fine
CRAFTSMANSHIP

World Leadership in Web-Fed, In-Line Production Equipment

Mercury

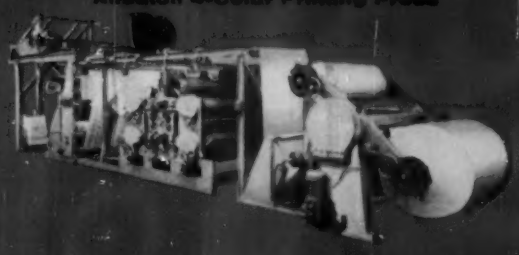
- Cutting
- Creasing
- Printing
- Drying
- Laminating
- Embossing
- Rotary Stripping
- Rotogravure

Mercury IN-LINE machines prove their worth every day — on the job all over America. With Mercury you achieve new peaks of profitable production . . . you get IN-LINE with today's needs and tomorrow's demands. Every machine bearing the Mercury Emblem is designed by men who know the needs and preferences of paper converters. For short runs or long — for complex or simple jobs — Mercury equipment is unsurpassed, always giving long, dependable service . . . around the clock performance, year in and year out.

In-Line Cutter-Creaser With Automatic Stripping

New All-Purpose Laminator

Nilsaton 4-Color Printing Press



Mark R-44 Multi-Color Flexographic Printer

Mark K-44 In-Line Cutter-Creaser With 6-Color Rotogravure Printing

MERCURY
ENGINEERING CORPORATION
2100 N. Farwell Avenue • Milwaukee 2, Wis., U. S. A.

Profit Producing Machinery for Paper Convertors

provocative packages

put punch in your sales picture!

The Ideal Re-Use Container

Women will love this stunning, waterproof, all-purpose carrying case. Perfect for the beach, for travel, for shopping. Odorless, alcohol and perfume proof. Easily cleaned in hot water.

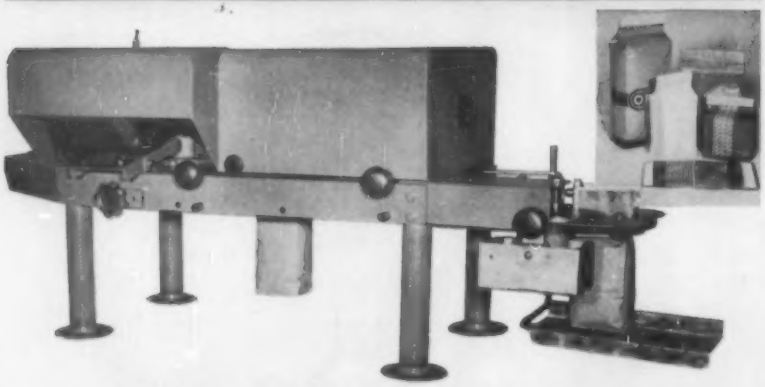
Send for Re-Use Packaging Catalog M-2 for many diverse packaging containers such as cosmetic kits, jewel boxes, candy dishes, handbags, etc.

AVAILABLE IN TWO SIZES: 8" dia., 3½" deep and 5" dia., 2½" deep; with or without polyethylene squeeze bottles.

PLASTIC JEWEL CO., INC.
1112 BROOK AVE BRONX 56, N.Y. Wy 2-4900

SOMETHING REALLY NEW IN A PAPER BAG CLOSING MACHINE

FRY CONTINUOUS MOTION BAG CLOSING MACHINE



MODEL GS-54 — Continuous-Motion Bag Closing Machine double-folds, heat seals and/or Glues for sift-proof Closures.

Write for informative folder on this and other models. Please submit bag and product samples.

GEORGE H. FRY COMPANY
42 EAST SECOND ST., MINEOLA, N.Y. TEL. Pioneer 6-6230

Plants and people

Belfit has been named sales representative for the Pennsylvania, New Jersey and metropolitan New York area, taking over the duties relinquished by **John Wallace.**

Sargeant

Recently elected vice president of **Container Laboratories, Inc.,** Chicago, **James A. Sargeant** will continue in his capacity as manager of the Chicago division of the nation-wide firm. Facilities under his supervision include consultation, research, design and testing in the fields of packaging and materials handling. Before joining Container Laboratories in 1953, Mr. Sargeant was chairman of the Army packaging board and chief of the packaging section, Army general staff.

A four-month strike at the Mechanicville, N.Y., plant of **West Virginia Pulp & Paper Co.,** New York, has been settled and work is again in full swing.

Avery Adhesive Label Corp., Monrovia, Calif., held open house to mark completion of a $450,000 expansion of equipment, plant and office facilities.

At its recent annual meeting, the board of directors of Avery elected **R. S. Avery** as chairman of the board. **Russell Smith** succeeds Mr. Avery as president.

The Dow Chemical Co., Midland, Mich., announces the appointment of **Leo B. Grant** to the newly created position of sales manager of the chemicals department with headquarters at Midland. **James Day,** presently supervisor of chemical sales in New York, will succeed Mr. Grant as manager of the New York office. Mr. Day has been with Dow since 1936.

G. J. Williams has been appointed assistant to the sales manager, a newly created post in the plastics department. Succeeding him in his former capacity as sales manager of the textile fibers department, is **Amos L. Ruddock.**

J. W. Mighton has been promoted to head of the molding section of the plastics technical service. He succeeds **Gordon B. Thayer,** recently named plastics specialist. He is succeeded in his previous post as head of the sheet forming section by **Richard J. Lee,** formerly a customer service engineer in the film section.

Though he has retired as director of the company's Edgar C. Britton Organic Research Laboratory at Midland, **Dr. Edgar C. Britton** will continue to serve as a research consultant with Dow. He is succeeded by **Dr. Ralph P. Perkins** who was his former assistant.

Dow Chemical Co. now produces synthetic glycerin in commercial quantities at its Texas division glycerin plant util-

izing propylene as the basic raw material. Current market estimates for 1956 are that 235 million pounds of glycerin will be used, and of this amount approximately one-third will be synthetic. Dow's glycerin, U.S.P., will be sold in drums and bulk.

The Sun Tube Corp. of Canada, Ltd., a subsidiary of Sun Tube Corp., Hillside, N.J., has appointed **A. E. Watts** as vice president in charge of plant operations at Ottawa. Vice President in charge of sales is **W. D. McDonald**, who joined the organization in 1950.

J. L. Stanley, newly appointed head of the Chicago sales office, has been replaced by **George W. Peck** as manager of the Philadelphia container sales office of **Thatcher Glass Mfg. Co., Inc.**, Elmira, N.Y. Mr. Peck joined the company in 1946, served as advertising manager until 1951, and until his recent appointment, was in the Rochester sales office handling the northeastern New York area.

Yale Materials Handling Div., **The Yale & Towne Mfg. Co.**, Philadelphia, has appointed two new regional sales managers. **Neal J. Kemp**, who was a hoisting equipment sales manager in Detroit, has been named midwestern regional sales manager. **Louis W. Jander**, former general sales manager of the Henry Disston Div. of H. K. Porter Co., Inc., will cover the eastern region, which includes portions of eastern Canada.

Kaiser Aluminum & Chemical Corp.'s foil kraft division has commenced operations in its new aluminum food container plant at Wanatah, Ind. The new facility, costing more than a million dollars, will supply frozen food, bakery and other food processing industries in the east and midwest and is to augment production at the Los Angeles plant.

Lane-Bender, Inc., package designers and design consultants, have doubled the facilities of their office at 157 W. 57th St., New York.

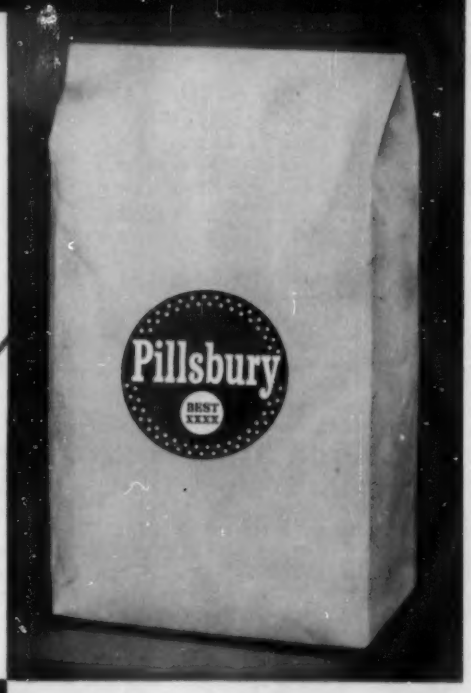
James W. Hutchison has been appointed vice president in charge of reduction at **Olin Revere Metals Corp.**, New York. Mr. Hutchison was formerly plant manager at Reynolds Metals Co.'s Jones Mill Reduction Plant in Arkansas. His headquarters will be at Omal, Ohio.

Colonel Robert G. Peck, U. S. Army Retired, died on Nov. 12, at the age of 77. In 1922, Colonel Peck became associated with **The Aridor Co.**, of Chicago, now a division of **Ball Brothers Co.** He was president of the company until his retirement from business in 1945.

After a lengthy illness, **Gilbert B. Dingley**, long-time New York district sales manager for **Crown Cork & Seal Co., Inc.**, of Baltimore, Md., died in New York at the age of 59. Mr. Dingley joined the company in 1921.

A quiet revolution in packaging... the Kehr

"CANVALOPE"®



For the first time . . . the properties of a can with the flexibility of a bag...

Take a good look at the package on the right. What you see is the Kehr "Canvalope," a quiet revolution in packaging, because it combines the flexibility of a bag with the properties of a can . . . super-strong, sift-proof, and moisture-proof! It is an ideal container for products having extreme fineness, high specific gravity and/or sensitivity to moisture change, i.e., powders, cake mixes, drugs, etc. An exclusive Kehr development, it may afford you new economy and safety in the packaging of one of your products. Write for samples.

Who started this quiet revolution in packaging?

This is the first national advertisement for the Kehr Products Co. In a quiet way, we've been designing and manufacturing flexible packaging for over 40 years. Now it's time to speak up. We think we can lower your packaging costs with the same kind of technical skill that developed the "Canvalope." Try us.

The Kehr "Canvalope" offers you these unusual advantages

SIFT-PROOF—All seams are both heat-sealed and glue-sealed to preclude all possibility of even the finest powder seeping or sifting through.

MOISTURE-PROOF—Highest resistance to moisture-absorption is provided by an inside coating of a special tough, inert plastic.

SUPER-STRONG—The materials used and the exclusive Kehr methods of manufacture make this the strongest bag of its kind . . . Super-safe for severe handling.

IMPORTANT!

Two of the largest food companies* were able to market new products only because of the invention and availability of the Kehr "Canvalope"!

*Names on request.

WE INVITE YOUR INQUIRIES TODAY

Kehr PRODUCTS COMPANY

419 N. BROAD STREET, PHILADELPHIA 8, PA. • WAlnut 5-3356

Designers and Manufacturers of: Bags, Pouches, Tubing, "Canvalopes," Sheets and Rolls from flexible films, foils and papers printed by the flexographic or rotogravure processes.

For your information

The 7th Annual Set-Up Paper Box Competition, sponsored by the **National Paper Box Mfrs. Assn.,** is open for member company entries. All entries received by the closing date, Feb. 15, will be eligible for awards in each of four categories: general superiority according to end use, best surface design and execution, superiority of construction, and best display box. Winners, to be selected by a panel of judges in Philadelphia in March, will be announced during the association's 1957 annual meeting at the Eden Roc Hotel, Miami Beach, Fla., May 1-4. Entry blanks and eligibility rules can be obtained from the National Paper Box Mfrs. Assn., 1101 Liberty Trust Bldg., Broad & Arch Sts., Philadelphia 7.

The 1957 National Industrial Packaging & Handling Exposition, sponsored by the **Society of Industrial Packaging and Materials Handling Engineers** will emphasize what's new and how to do it in industrial packaging, package handling, transportation and the relationship of all three to distribution. The exposition is scheduled to be held in Atlantic City's Convention Hall on Oct. 28 through 31. Also to be featured at the event are the annual SIPMHE Short Course and National Packaging & Materials Handling Competition. For information on the triple event, write to **Hanson & Shea, Inc.,** exposition managers, One Gateway Center, Pittsburgh 22.

A new SIPMHE Chapter has been formed in Pittsburgh. Representatives of 20 companies attended the organizational meeting. **Francis Aland,** Pittsburgh Plate Glass Co., was elected president pro tem and **Richard Majesky** of the same company was elected secretary-treasurer pro tem.

Entries are being received for the **7th Lithographic Awards Competition & Exhibit,** sponsored by the **Lithographers National Assn.** Awards are to be made in 45 major classifications and entries must be mailed by Jan. 18 to the LNA Awards Competition, Lithographers National Assn., 420 Lexington Ave., New York 17.

The following officers were elected at the recent 41st annual meeting of the **Label Mfrs. National Assn.:** president —**Robert J. Rodgers,** H. S. Crocker Co., Inc.; vice president—**Clifton B. Batchelder,** Epsen Lithographing Co.; treasurer—**Lorenz L. Schmidt,** Schmidt Lithograph Co., and executive director—**Oscar Whitehouse.** Five new members of the board of directors are: **Mr. Batchelder; A. G. Alexander,** G. A. Ackermann Printing Co.; **Raymond P. Kane,** U. S. Printing & Lithograph Co.; **George R. Langlois,** Muirson Label Co., Inc., and **Alfred J. Weinsheimer,** Magill-Weinsheimer Co.

T. M. Dutton, executive vice president of Wonder Bakeries, Ltd., Toronto, was elected president of the executive committee of the **Packaging Assn. of Canada** at the recent 5th Canadian National Packaging Exposition. Dates set for the 1957 exposition are Nov. 5-7, Automotive Bldg., Toronto.

T. H. Mittendorf, executive vice president of the Hudson Pulp & Paper Corp., has been elected president of the **Gummed Industries Assn., Inc.,** for a second term. **R. T. Meyer** of Tape, Inc., was re-elected as vice president and **Philip O. Deitsch** was again named as managing director. The Eden Roc Hotel at Miami Beach will be the site for the association's next meeting in May.

Sixty technical papers will be presented during the 17 sessions of the three-day Annual Technical Conference of the **Society of the Plastics Engineers,** to be held at the Sheraton-Jefferson Hotel in St. Louis, Jan. 16-18. Arrangements for attending the conference may be made through the registration chairman, **Harold Holz,** 122 N. Kirkwood Rd., St. Louis 22, Mo.

An informative brochure has been prepared by the Forest Products Div. of **Olin Mathieson Chemical Corp.** to explain how kraft paper is made. This division of Olin Mathieson produces paper, bags, corrugated containers and multiwall bags. For copies of the booklet, write to Olin Mathieson Chemical Corp., Public Relations Dept., 460 Park Ave., New York 22.

Harry E. Peterson of Peterson Filling & Packaging Co. has been named president of the **Chemical Specialties Mfrs. Assn. Dr. Emil G. Klarmann** of Lehn & Fink, retiring president, was named to the association's board of governors along with **Anton E. Budner** of S. C. Johnson & Son, Inc., and **Russell G. Puhle** of The Borden Co. Other new officers, elected at the association's recent 43rd annual meeting are: first vice president, **James E. Ferris,** Hooker Electrochemical Co.; second vice president, **Donald M. King,** Masury Young Co.

Technological advances in the reconditioning of steel drums during the past year were stressed during the 15th annual convention of the **National Barrel & Drum Assn.,** held in New York recently in conjunction with a Suppliers' Industrial Exhibit displaying drum reconditioning machinery and other industry supplies.

The 58th annual meeting of the **National Wooden Box Assn.,** Washington, D. C., will be held at the Boca Raton Hotel and Club, Boca Raton, Fla., Jan. 31 to Feb. 1.

A new motion picture dealing with the physics of color has been released by **Interchemical Corp.,** manufacturer of IPI printing inks. Produced by **Wilding Picture Productions** and filmed in Eastman color, "This Is Color" is a nontechnical film with sound and has a running time of 27 minutes. The film may be borrowed through Interchemical Corp., 67 W. 44 St., New York 36.

Newest addition to the **Hinde & Dauch** "Little Packaging Library" series is entitled "How to Save Labor Costs With Corrugated Boxes." The handy reference manual demonstrates that even the smallest economy in packaging procedures can bring substantial savings over an extended period. Copies of the new booklet may be obtained on request to Hinde & Dauch, Sandusky, Ohio.

A 16-week course on Industrial Packaging being offered by the Industries Training School of **Stevens Institute of Technology,** begins on Feb. 4. The course is designed to provide engineering fundamentals and specialized know-how to personnel active in all phases of the packaging field. **Walter F. Friedman,** consultant with Container Laboratories, Inc., will instruct the course. Further information may be obtained from the director of the Industries

What's doing

Jan. 16-18—**Society of Plastics Engineers, Inc.,** 13th annual National Technical Conference, Hotel Sheraton-Jefferson, St. Louis, Mo.

Jan. 17-24—**Independent Housewares Exhibit,** Morrison Hotel, Chicago.

Jan. 21-24—**National Potato Chip Exposition,** Dallas, Tex.

Jan. 22-Feb. 1—**British Institute of Packaging,** Packaging Exhibition, Olympia, London, England.

Jan. 27-29—**National Wood Pallet Mfrs. Assn.,** 10th semi-annual meeting, Hollywood Beach Hotel, Hollywood, Fla.

Jan. 28-31—**Plant Maintenance and Engineering Show and Conference,** Public Auditorium, Cleveland, Ohio.

Jan. 31-Feb. 1—**National Wooden Box Assn.,** 58th annual meeting, Boca Raton Hotel, Boca Raton, Fla.

Feb. 3-14—**Chicago Gift Show,** Lasalle Hotel and Palmer House, Chicago.

Feb. 16-19—**National Canners Assn. and Canning Machinery & Supplies Assn.,** 50th anniversary conventions, Conrad Hilton Hotel, Chicago.

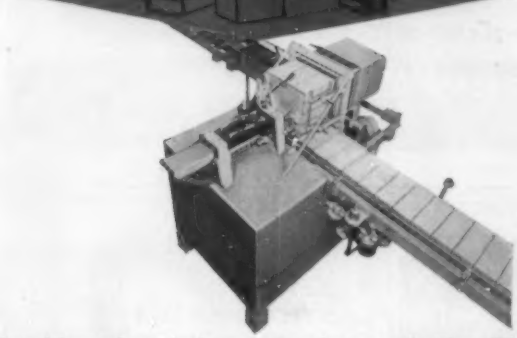
Feb. 17-22—**American Paper & Pulp Assn.,** 80th annual convention, New York.

Feb. 18-22—**Technical Assn. of the Pulp and Paper Industry,** convention, New York.

fmc presents 2 great Casing Machines

For Continuous Automatic High-Speed Line Operations

SURE-WAY PACKAGE CASER*



Requiring only a single operator, the versatile "Sure-Way" brings important economies wherever it replaces manual or semi-automatic package casing operations.

Man-hours alone can be reduced up to 70 and 80%. Even with its high capacity—up to 240 packages per minute—the "Sure-Way" is near-human in gentleness to packages, overwraps and labels.

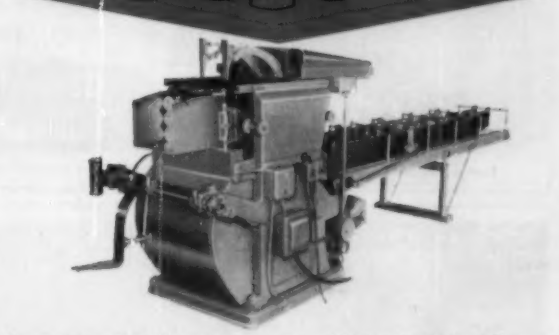
It's compact, too—in some installations space requirements are cut as much as 80%. Other features include:

- Complete safety through automatic controls.
- Gentle compressed air used for actuation.
- Broad flexibility of loading patterns.
- Handles variety of case and package sizes.
- Loads top or end opening cases.
- Small power requirements—one ½ HP motor drives both feed and discharge conveyors.
- Moderate capital investment.
- Low maintenance costs.

Typical products handled include cosmetics, cereals, detergents, bar soap, sugar, cake mixes, small packaged machine parts, oleomargarine, cigar boxes, frozen foods, etc.

*Exclusive Distributors: Food Machinery and Chemical Corporation

fmc NON-SHOCK CAN CASER



Smooth and gentle as its name, the FMC "Non-Shock" caser places cans into cases completely free of damaging impact to cans, labels or product.

Speeds up to 1200 cases per hour can be attained, limited only by the speed of the single operator. Automatic in operation, the filled case lowerator arm and tiered can pusher arms are activated as empty carton is slipped over loading chute.

Cans enter machine in *upright* position, move smoothly down woven wire belt. There's no rolling, no seam-to-seam impact nor seam-splitting action of steep gravity-roll contact.

Compact and flexible, FMC "Non-Shock" Casers are ruggedly built for long life, handle specific can sizes and certain combinations from 202 x 308 packed 6 x 8, to 603 x 700 packed 2 x 3.

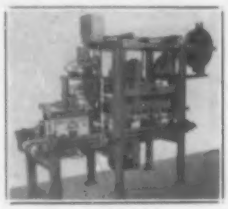
Whatever your problem—can labeling, casing, sealing—FMC packaging engineers welcome the opportunity of reviewing them with you. If your product is packaged in a box, carton, can, or other rigid or semi-rigid container, or if the product itself takes a rigid shape, chances are you can case it better for less with FMC precision-engineered equipment. Send full details for prompt reply. No obligation, of course.

fmc — the natural sign of forward drive

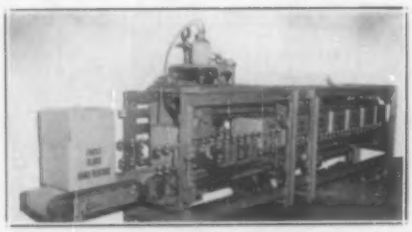
FOOD MACHINERY AND CHEMICAL CORPORATION

Canning Machinery Division

General Sales Offices:
WESTERN: SAN JOSE, CALIF. • EASTERN: HOOPESTON, ILL.



Tape Sealer



Carton top-flap gluer

Carton bottom flap-gluer

GENERAL THE MOST DEPENDABLE LINE . . .

CASE SEALING WITH TAPE AND/OR GLUE . . .

• General's taper, a natural for rule 41, tape seals, automatically up to 25 or more cases per minute, single-strip, top and/or bottom flaps only, plus end-panels, if required. "It's always ready." Tape also serves as dust and pilfer-proof seal. Machine length 7 feet, minimum.

• General's automatic top flap gluer and/or taper of filled containers has no equal. Has closed-system. There's no need for "clean-up," it's always ready. Saves ½ hour production time daily. CLOSED-SYSTEM CAN REPLACE GLUE-POT METHOD IN OTHER MACHINES.

• General's one-man bottom flap gluer and/or taper of unfilled cartons is "the best yet." Does more and better for less. Only 5' wide by 9' long. Has "U" turn delivery.

• General's case sealers have all the design features that engineered the unequaled "General Line" for taping or gluing the "manufacturers-joint" in container manufacturing plants throughout the industry. It's really wise to General-ize.

THE BEST NAME IN TAPING AND GLUING

General Corrugated Machinery Company, Inc.
Palisades Park • • New Jersey

new NEW new new NEW NEW NEW new

NEW YEAR . . . NEW PLANS . . . NEW IDEAS
NEW EQUIPMENT . . . NEW EDGE-GUIDANCE
Automation **IN EDGE-GUIDANCE**
EDGETRONICS® by Intercontinental

NEW **For TUFTED CARPETING** – Our exclusive original application . . . edge-guidance device coupled with accurate edge-trimmer.

NEW **For LACE, GAUZE and NETTING** – Only our photo-electronic method can detect, control and guide these materials.

NEW **For PLASTICS** – Far superior to any existing edge-guidance on thin gauge materials.

NEW **For TEXTILES** – Only lint-proof device . . . applies no force or pressure to most delicate fabrics . . . eliminates all manual control of tubing, rerolling and positioning.

NEW **For LAMINATING** – Application of automation to present-day obsolete manual and mechanical methods.

NEW **EDGETRONICS** . . . a photoelectronic approach to edge-guidance . . . instantaneous response and control with no mechanical time lags . . . result: equipment guaranteed to be an advance on all existing edge-guidance devices now in operation. Or better still, use EDGETRONICS and our corps of research and development engineers to solve your specific problem.

For Full Information write for our FREE brochure today

INTERCONTINENTAL DYNAMICS CORPORATION
370 COOLIDGE AVENUE • ENGLEWOOD, NEW JERSEY

PROVIDES AUTOMATION IN PACKAGING

NEW PLASTIC SHEETER and BAG-MAKER

PAYS FOR ITSELF IN A HURRY

MAKES BAGS AT HIGH SPEED

OVERALL SIZE
43" wide, 32" deep,
41" maximum height.

Rapidly measures, cuts and vends Pliofilm, Cellophane, Polyethylene, Mylar, Paper, etc., in flat sheets from roll stock. Lengths from 3" to 100". Bags are measured and cut from rolled tubular stock sealed at end. Handles rolls to 24" wide. Anyone can operate expertly. Simply select size, press button and entire measuring, cutting and sealing operation is completed automatically.

Completely Automatic Simple to Operate

Ruggedly Constructed

No special wiring needed. Plugs into 120 V. 60 cycle outlet.

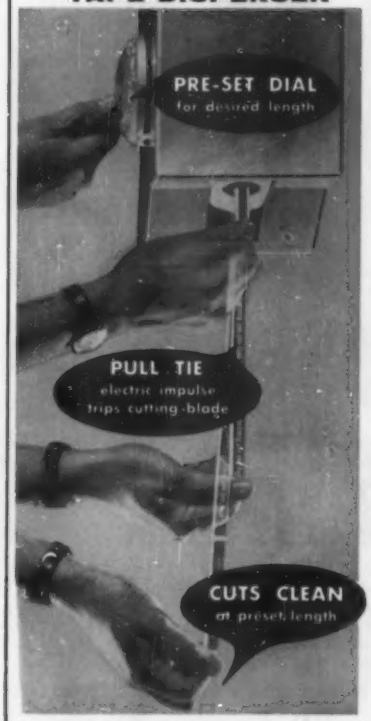
Many Accessories For Increased Versatility

Standard machine is equipped with plug-in panel for following accessories: *Stacker* for automatic stacking and elimination of external static; *Pre-Determined Counter* for automatic shut-off at set quantity; *Electric Eye* for cutting printed stock; *Foot Switch* for on-off foot-control; *Extra Stock Rack* for multiple rolls; *Extension Table* and *Conveyor Belt* for faster production.

Put this amazing new time-saver to work for you now. Write today.

LectrOmatic Devices, Inc.
3345 W. Addison Street, Chicago 18, Illinois

SAVE UP TO 25%
with
plas-tie matic
the all-new electronic
TAPE DISPENSER



Speeds produce bunching and bag closing operations. Saves material, too!

The PLAS-TIE MATIC Tape Dispenser holds up to 2,000 feet of Plas-Ties or FAS-TIES twist-to-tie tape ready for you to use. Simply set the dial to any length you desire, from 3 to 16 inches, pull the tape . . . and PLAS-TIE MATIC delivers it into your hand, cut to length, ready to be tied!

Plas-Ties are the all vinyl-wire produce ties and bag closure tapes:—waterproof, freezeproof, colorful, re-usable.

FAS-TIES are competitively priced twist-to-tie tapes made from polyethylene, kraft and wire; they stay fresh looking longer.

Change from FAS-TIES to Plas-Ties in your PLAS-TIE MATIC in seconds.

Write now for complete information

plas-ties company
SANTA ANA, CALIFORNIA
Manufacturers of Plas-Tie bag closures and Fas-Tie paper "twists"

For your information

Training School, Stevens Institute of Technology, Fifth & Hudson Sts., Hoboken, N. J.

Some 2½ acres of exhibit space, with 121 exhibitors participating, will be used for the **50th Anniversary Canning Machinery & Supplies Assn. "Canners Show"** to be held Feb. 16 to 19 at the Conrad Hilton Hotel in Chicago. The show is being held in conjunction with the Golden Anniversary Convention of the **National Canners' Assn.**

The **Package Designers Council** will announce winners of its **Third American Package Design Competition** Feb. 15 at a luncheon at the Plaza Hotel, New York, where some 60 awards will be presented. All entries in the competition will be on exhibit at Cooper Union Museum, New York, Jan. 28-Feb. 20. Designer Frank Gianninoto will discuss trends in food packaging at the gallery Jan. 29 at 8 p.m., for the first in a series of special events.

The Shellmar-Betner Flexible Packaging Division, Continental Can Co., has won the Award of Excellence in the 1956 competition of the **Produce Packaging Assn.** The award was given for Shellmar-Betner's "Rolla-Bags," printed polyethylene bags in continuous roll form.

The Bakelite Co. has published two new booklets of interest to packagers. The revised 1957 edition of the **"Condensed Reference File of Bakelite Plastics"** is designed to help engineers, fabricators and designers choose the right plastic for any job.

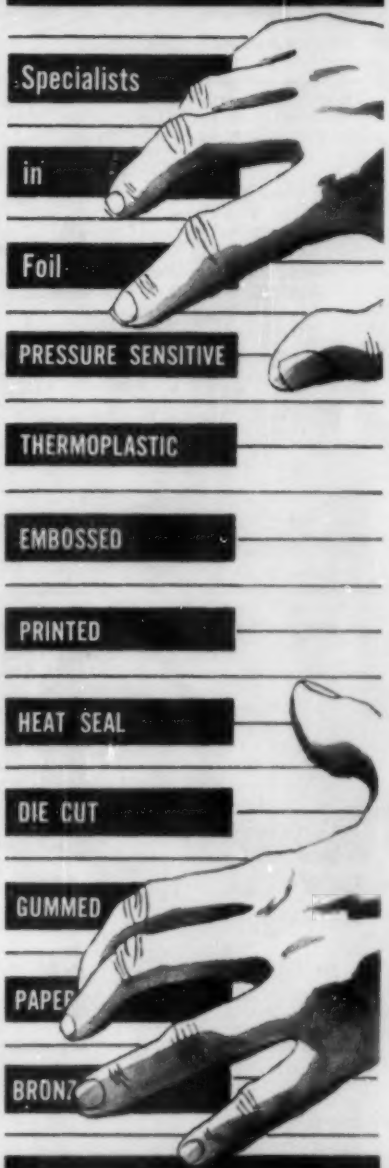
The company's **"1957 Guide to Improved Packaging"** is a new eight-page booklet featuring packages that set new styles in merchandising through the use of plastics.

Both of the booklets may be obtained on request to **Bakelite Co., a Division of Union Carbide & Carbon Corp., 30 E. 42 St., New York 17.**

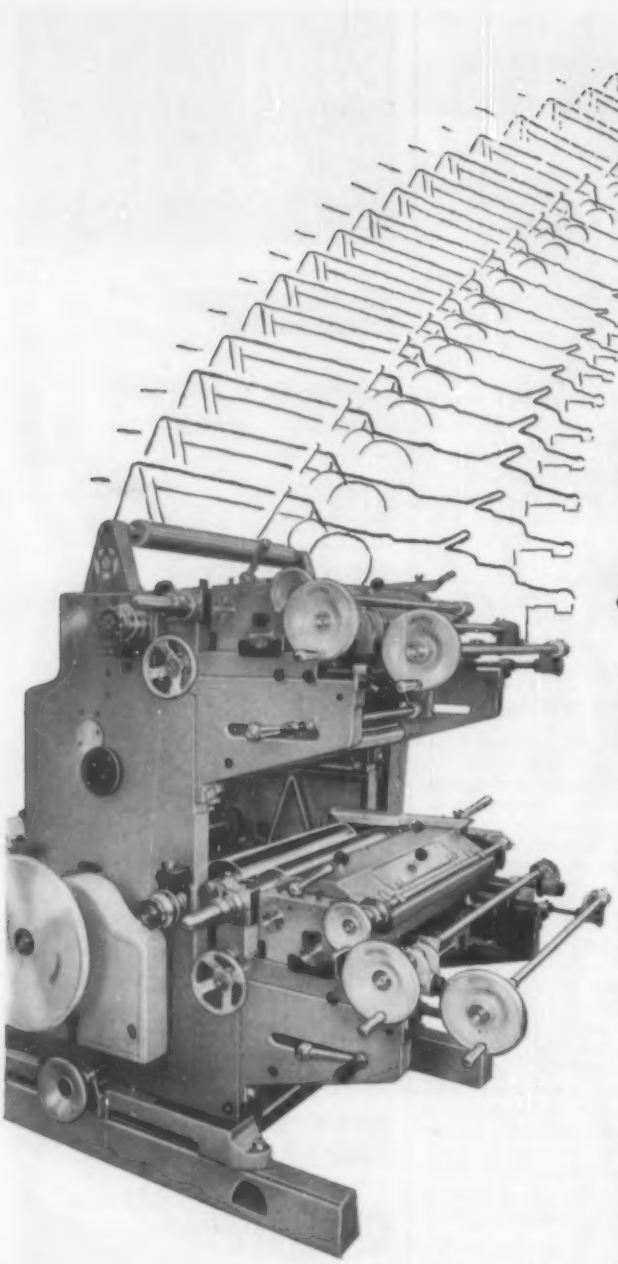
More than 200 exhibitors have reserved space for the **Fifth British International Packaging Exhibition** to be held from Jan. 22 to Feb. 1 in London. Visitors expecting to be in England during the time of the show may obtain admission tickets to the exhibition on request to Provincial Exhibitions, Ltd., City Hall, Manchester, England.

The profit-building possibilities of packaging for the business man are set forth in a new book. **"The Selling Power of Packaging," by Vernon L. Fladager** (McGraw-Hill Book Co., 327 W. 41 St., New York 36: $3.50). The author, an account executive with D'Arcy Advertising Co., Inc., surveys the revolutionary effects that packaging can produce in today's market.

Seals·Labels·Tags
by CAMEO



CAMEO
DIE AND LABEL COMPANY
154 WEST 14th STREET, NEW YORK, N. Y.
Chelsea 3-0228
The Mark of Quality



20 HHH ALINA-X-30

FLEXOGRAPHIC ENDPRINTERS

SOLD TO ONE CUSTOMER

CHOSEN ON THE BASIS OF PROVEN PERFORMANCE TO REPLACE OBSOLETE EQUIPMENT.

THERE'S THE "PROOF OF THE PUDDING!"

Repeat orders, from users everywhere, attest to the worth and dependable performance of H.H.H. Alina-X-30 Flexographic Endprinters.

One firm has reordered 20; another 15, others up to six—Only one inference can be drawn from such expressions of confidence . . . these H.H.H. Endprinters must be good.

Send for literature and see for yourself why "Hundreds of Users can't be wrong!"

H. H. HEINRICH COMPANY

111 EIGHTH AVENUE
NEW YORK 11, N. Y.
WAtkins 4-6970

32 YEARS OF SERVICE TO THE CONVERTING INDUSTRY

1. SELECT the items you want
2. CIRCLE the corresponding numbers on the post card
3. FILL IN the information requested
4. MAIL — no postage required

HELPFUL LITERATURE FREE

There is valuable data — worth dollars and cents to you — in the literature and samples described below.

EQUIPMENT • SUPPLIES • SERVICES

RE-USE GIFT CONTAINERS. Folder contains illustrations of specialty containers suitable for such re-use as jewel boxes, sewing kits. Illustrates embossed, leatherette set-up boxes, and metal canisters. The S. K. Smith Co. (A-751)

MOLDED PLASTIC BOXES. Catalog folder illustrates and describes extensive line of clear, rigid molded plastic boxes in oval, compartmented, rectangular, hinge-top shapes. Tri-State Plastic Molding Co. (A-752)

CORROSION INHIBITOR PAPER. Folder illustrates and describes chemically impregnated volatile corrosion inhibitor paper and discusses packaging applications. Cromwell Paper Company. (A-753)

SHIPPING CONTAINER CLOSURE. Illustrated literature describes metal closure device for use with plywood shipping containers and illustrates proper method of application. Metalstamp Inc. (A-754)

STATIC ELIMINATOR FOR FILM. 8-page booklet describes, gives diagrams of operation, and illustrates applications for apparatus that eliminates static electricity on film and sheeting by ionizing the surrounding air. United States Radium Corporation. (A-755)

PRODUCTION TIMER. Literature illustrates and describes equipment that continuously computes and registers total operations time, of any machine, operation or process in chart form. Standard Instrument Corporation. (A-756)

LITHOGRAPHED METAL CONTAINERS. 16-page brochure presents illustrations and description of company's metal container service. Includes design, art work, lithographing, fabricating for containers suitable for food, medicinals, chemicals. J. L. Clark Manufacturing Co. (A-757)

HEAVY-DUTY CORRUGATED CONTAINERS. Folder contains diagrams of representative types of containers with triple rows of fluting said to withstand compressive loads up to 1000 lbs. per lineal foot. Tri-Wall Containers, Inc. (A-758)

FILM EXTRUDERS. 16-page illustrated catalog illustrates and gives specifications for line of extruders with 1½ in. to 12 in. diameters suitable for extruding film and sheet. Includes illustrations of accessory equipment. Hartig Engine and Machine Company. (A-759)

STOCK TRANSPARENT PLASTIC BOXES. Illustrated folder describes line of stock compartmented, oval and rectangular transparent thermoplastic boxes. Includes catalog sheet with patterns, sizes, prices. Shoe Form Co. Inc. (A-760)

CASE SEALING ADHESIVES. Literature describes properties and applications for eight case-sealing adhesives. Includes dextrine and synthetic resin adhesives. H. B. Fuller Company. (A-761)

FILLING, PACKAGING, WEIGHING MACHINES. Folder illustrates and describes line of packaging equipment, including tube filling and closing, jar and bottle filling, case sealing, carton or bag making, and weighing machines. Arenco Machine Company. (A-762)

BAG CLOSING MACHINE. Folder describes machine that folds, glues or heat seals square, flat or gusset bags of kraft, also pliofilm lined, polyethylene coated bags. George H. Fry Company. (A-763)

FILLER FOR FOODS. Literature describes automatic machine that fills cut foods, fruits, and vegetables into jars up to 1 quart and cans up to #10 size at speeds to 150 a minute. Solbern Manufacturing Corporation. (A-764)

MARKING MACHINES. Illustrated literature describes line of machines that mark, imprint and code flat and irregularly concontoured containers, overprint on cans, and mark packages and labels. Markem Machine Co. (A-765)

RIGID PLASTIC CONTAINERS. Catalog describes line of stock boxes available in clear, colored opaque, multi-colored spray, and etched varieties in many sizes and shapes. Prices are included. Harkin Affiliates. (A-766)

EQUIPMENT FOR HANDLING LIQUIDS. Folder illustrates and describes equipment and materials for filtering and liquid handling. Includes description of filter presses, filter paper, filter cloth, vacuum filters, counters, cappers, fillers, and storage tanks. Filpaco Industries, Inc. (A-767)

BLISTER PACKAGING. Literature describes and illustrates semi-automatic drape and vacuum forming machine suitable for production of transparent plastic blisters. Suitable for "tight wrapping" merchandise to cards. The Auto-Vac Company. (A-768)

ALUMINUM FOIL MANUFACTURING. 12-page brochure describes company's facilities for producing rigid foil containers, packaging materials and other foil products. Also discusses lamination of aluminum foil to paper and paperboard. Cochran Foil Co. (A-769)

HEAT SEALER CATALOG. Catalog illustrates, describes, and includes specifications for line of thermal impulse heat sealing equipment for use with thermoplastic films. Includes hand, foot-pedal, power-operated models. Vertrod Corp. (A-770)

FOIL PAPER SAMPLE KIT. Folder contains over 60 samples of colored and embossed aluminum foil paper suitable for seals, labels, wraps, and box coverings. H. D. Catty Corp. (A-771)

Fill out and mail this card now

MODERN PACKAGING

MANUFACTURERS' LITERATURE SERVICE

Please send me the free items circled below. ☐ **I am a non-subscriber*** **I am** ☐ **a subscriber**

A-751 A-752 A-753 A-754 A-755 A-756 A-757 A-758 A-759 A-760 A-761
A-762 A-763 A-764 A-765 A-766 A-767 A-768 A-769 A-770 A-771 A-772
A-773 A-774 A-775 A-776 A-777 A-778 A-779 A-780 A-781 A-782 A-783
A-784 A-785 A-786 A-787 A-788 A-789 A-790

*If you do not have a personal subscription and would like to receive the next twelve monthly issues plus the next annual Encyclopedia issue (U.S.A. & Canada, $7.00; Pan America $10.00; all others, $30.00) please check here

☐ Check enclosed ☐ Send bill

NAME ..... POSITION .....
(Please Print Plainly)

COMPANY .....

STREET ..... CITY ..... STATE .....

(This card cannot be honored after April 15, 1957)

FREE HELPFUL LITERATURE

There is valuable data—worth dollars and cents to you—in the literature and samples described below.

1. SELECT the items you want
2. CIRCLE the corresponding numbers on the post card
3. FILL IN the information requested
4. MAIL—no postage required

EQUIPMENT • SUPPLIES • SERVICES

GLASSINE SAMPLE BOOKLET. Booklet contains samples, descriptions, available data on sizes of line of transparent, colored, embossed, coated, and aluminum foil laminated glassine papers. Riegel Paper Corporation. (A-772)

PLASTICS CONTAINER CATALOG. 44-page catalog contains illustrations and specifications for more than 150 styles of molded plastic containers with names and addresses of suppliers. Includes information on shapes, sizes, colors, and suggested uses. Dow Chemical Co. (A-773)

WRAPPING AND PACKAGING EQUIPMENT. 14-page catalog illustrates and describes line of equipment for wrapping and packaging baked goods, food products, textiles, and paper products. Includes specifications, illustrations of applications for each machine. Battle Creek Packaging Machines, Inc. (A-774)

MATERIAL FOR PACKAGING INSTRUMENTS. 8-page booklet discusses factors involved in the packaging of delicate instruments. Discusses properties of rubberized hair and its uses as a cushioning material. Armour & Company, Curled Hair Division. (A-775)

CONTRACT AEROSOL PACKAGING. Brochure illustrates and describes facilities and procedures involved in Illinois company's custom packaging of aerosols. Also describes filling of non-pressure containers. Continental Filling Corp. (A-776)

TRANSPARENT PLASTIC PACKAGES. 8-page illustrated catalog gives details on line of standard and custom-designed transparent plastic packages, including such types as "blister" and slide-cover packages. Plastic Artisans, Inc. (A-777)

TESTING PACKAGING MATERIALS. 12-page handbook illustrates and describes the various tests used for determining suitability of packaging materials and containers. Discusses tensile, impact, puncture, bursting, tear, drop, moisture and weatherproofness tests. Container Laboratories, Inc. (A-778)

PACKAGING EQUIPMENT CATALOG. Illustrated catalog describes line of can casers, can unscramblers, container feed tables, container elevators, tray inverters, case sealers, and labeling machines. Chisholm-Ryder Company of Pennsylvania. (A-779)

PORTABLE HEAT SEALER. Folder describes 4½ lb. hand operated heat sealer suitable for thermoplastic coated and laminated materials. Jaws are 6 in. long by ¾ in. wide. Packaging Industries. (A-780)

METAL CLOSURE FOR CONTAINERS. Folder describes and illustrates working principle of a "snap-on" closure for use with glass or metal containers. Includes illustrations of company's nozzles, spouts, seals and overseals. Upressit Products Corp. (A-781)

FILM CONVERTING MACHINERY. File folder contains illustrations, descriptions, and specifications of line of machinery for flexible film and sheeting. Includes bag making and sealing equipment, packaging machinery for small objects, rotogravure printing presses. Conapac Machine Company. (A-782)

AEROSOL HANDBOOK. 46-page illustrated handbook serves as a guide to the use of aerosol packaging. Discusses container types, methods of filling, selection of propellants, and suggests formulations. Includes list of container manufacturers and suppliers. E. I. du Pont de Nemours & Company, Inc. (A-783)

HEAT SEALING-PACKAGING MACHINE. Literature describes machine that automatically forms, fills, seals bags from heat sealable film at speeds of 30 to 50 packages a minute. Handles bags of ¼ oz. to 1 lb. capacities. Mercury Heat Sealing Euipment Co. (A-784)

STOCK PLASTIC CONTAINERS. Folder describes and illustrates stock plastic specialty containers such as jewel boxes, handbags, cosmetic kits, utility cases. Available in various colors. Plastic Jewel Company, Inc. (A-785)

CASING TYER. Folder describes and illustrates semi-automatic machine that pleats casings and applies aluminum band closures at a rate of 30 a minute. Tipper Tie, Inc. (A-786)

SHIPPING CONTAINERS. 32-page brochure illustrates and describes company's facilities for the design, technical guidance and manufacture of corrugated fibreboard shipping containers. Inland Container Corp. (A-787)

DRAWPRESS FOR BOX COVERS. Illustrated folder describes press for drawing and trimming round and oval box covers from thermoplastic sheet. Drawing range is from 1¾ to 8¾ in. diameter. Maximum depth of draw is 1 in. Taber Instrument Company. (A-788)

PAPER CONVERTING MACHINERY. 24-page illustrated booklet describes a line of web processing machines, including models suitable for the coating, laminating, printing and general winding of paper and plastics films. Dilts Division, Black-Clawson Co. (A-789)

TABLET AND CAPSULE COUNTING MACHINES. Technical literature gives data on two machines that count capsules, tablets, and other small items with uniform diameters, then put them into bottles, vials, boxes, etc. The Burnet Co. (A-790)

Fill out and mail this card now

Postage Will be Paid by Addressee

No Postage Stamp Necessary If Mailed in the United States

BUSINESS REPLY CARD

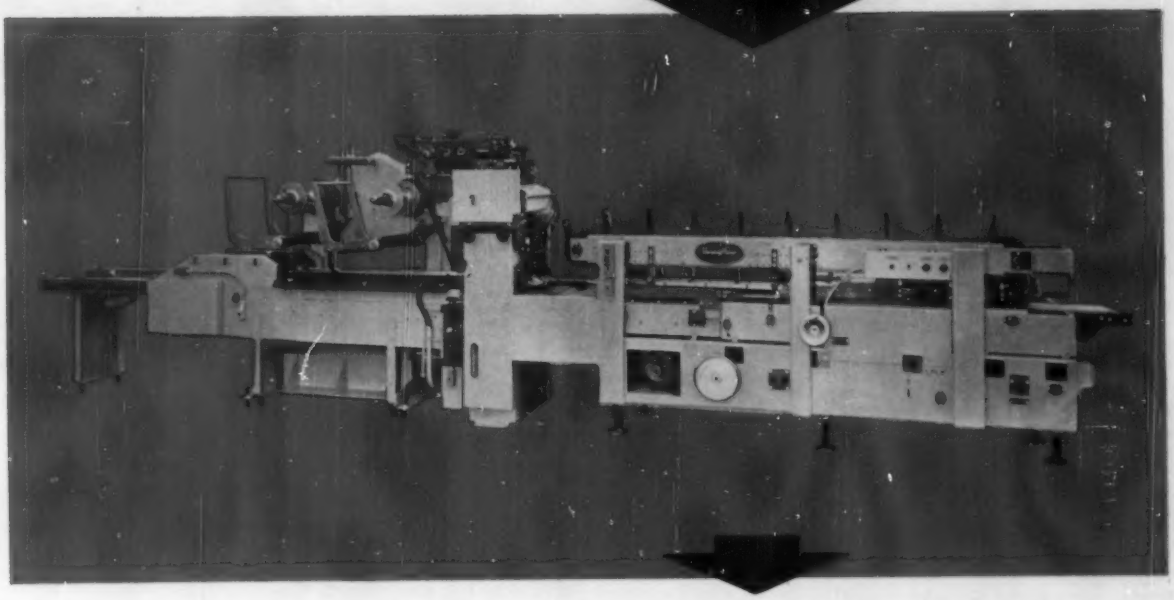
First Class Permit No. 2656 (Sec. 34.9, P. L. & R.), New York, N. Y.

MODERN PACKAGING

Village Station Box No. 103

New York 14, N. Y.

Only the new *Versaflow-150*



gives you straight-through packaging with no reciprocating motions

Here's another example of Package engineering leadership—the Versaflow-150. In the Versaflow, you will find an entirely new concept of handling over a wide size range. Packages move straight through the machine on a single level without changing direction. Continuous, uninterrupted speed, from infeed to discharge, assures gentle wrapping without upsetting package contents. There are *no* elevators, *no* reciprocating motions.

A special transfer feature on the Versaflow-150 enables you to feed directly from your production line. No direct drive hook-up is required. Belt infeed receives packages automatically, feeds them to the chain drive. Sealed ball bearings on all turning shafts eliminate maintenance, another Package 'plus' feature.

The Versaflow-150 will handle packages from 6" to 14" long, 3" to 7½" wide, 1" to 5" high. Variable speed drive permits operation up to 150 packages a minute. It wraps with cellophane, wax paper or heat-sealing foil. To get complete details, contact your nearest Package representative.

PMMI

PACKAGE MACHINERY COMPANY

EAST LONGMEADOW, MASSACHUSETTS
NEW YORK • PHILADELPHIA • BOSTON • CLEVELAND • CHICAGO • ATLANTA
DALLAS • DENVER • LOS ANGELES • SAN FRANCISCO • SEATTLE • TORONTO

U. S. patents digest

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps not accepted. Edited by H. A. Levey.

Apparatus for Folding Box Blanks, Leon E. La Bombard (to International Paper Box Machine Co., Nashua, N. H.). U. S. 2,764,918, Oct. 2. Mechanism for infolding an articulated flap of a flat box blank, while simultaneously pressing the main body thereof down on the paper line of a folding machine.

Foldable Carton for Canned Goods, Arthur J. Murray, Minneapolis, Minn. U. S. 2,765,073, Oct. 2. A carton for snugly packaging and for carrying, in row formation, a plurality of generally cylindrical containers of the type having closed top and bottom ends thereof.

Closure, Robert B. Ryan, South Gate, Calif. U. S. 2,765,094, Oct. 2. A cover assembly for use on an open-top receptacle comprising: a cover member of flexible plastic material having a peripheral flange for releasable engagement with the rim of said receptacle.

Detachable Box Lock, Ewing L. Sharpe, Beverly Hills, Calif. U. S. 2,765,096, Oct. 2. A box of resilient material having a hinged cover on the box and a perforated lip downwardly projecting from the front edge of the cover, the box having ribs projecting from the rear surface of the front wall thereof.

Closure for Use With High Pressures, Einar E. Tangard (to Combustion Engineering, Inc., New York, N. Y.) U. S. 2,765,098, Oct. 2. In a closure for a pressure vessel, a hollow cylinder closed at its ends by a pair of generally flat plates normal to the axis of the cylinder, a pressure-resistant support framework disposed within said cylinder intermediate said plates and comprising a plurality of hollow frustrums of a pyramid.

Lug Box, James W. Lively, San Jose, Calif. U. S. 2,765,099, Oct. 2. In a lug box having inclined side and end walls formed integrally with a depressed bottom, having a recessed surface defining a shoulder running adjacent the ends thereof.

Hollow-Walled Boxes, Marshall I. Williamson, New Haven, Conn. U. S. 2,765,113, Oct. 2. A hollow-walled folding box comprising, in combination, a main bottom panel and a pair of side-wall structures on opposite sides of the main bottom panel.

Apparatus for Weighing and Closing Flexible-Walled Containers, Harold V. Kindseth, et al. (to Bemis Bro. Bag Co., Minneapolis, Minn.). U. S. 2,766,001, Oct. 9. In a bag-weighing apparatus having a weighing station and a stranded endless conveyor for delivering a bag to said station.

Extrusion Apparatus, William E. Velvel (to E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.). U. S. 2,765,492, Oct. 9. A film extrusion apparatus comprising a body member having a lengthwise channel in its bottom surface, a U-shaped sleeve in said channel and spaced therefrom.

Wirebound Box Lidding Machine, John R. Richards, (to Food Machinery & Chemical Corp., San Jose, Calif.). U. S. 2,765,730, Oct. 9. In a machine for lidding wirebound boxes of the type having a hinged lid and having box-supported fasteners and lid-supported fasteners adapted to interengage upon closing the box lid.

Bead Orienting Device, Milton R. Seabrooke, Mars, Pa. U. S. 2,765,900, Oct. 9. Apparatus for orienting articles which are heavier at one end than at the other, comprising a vibratory parts feeder.

Tape Roll Support, Robert M. Dunning and Russell J. Hennessey, St. Paul, Minn., (to Waldorf Paper Products Co., St. Paul, Minn.). U. S. 2,765,907, Oct. 9. A pad in combination with a tape roll having a hollow core, the pad including a flat paperboard pad body having a series of tabs cut therefrom.

Corner Hinge Construction, James R. Watkins, North Haven, Conn. U. S. 2,765,947, Oct. 9. A wire hinge for connecting the overlapping corners of adjoining panels of a collapsible crate with said panels, having overlapping slats and cleats.

Container, Swan Hillman, Rockford, Ill. U. S. 2,765,949, Oct. 9. A container having in combination, a rectangular open-topped body having parallel side walls, a flat rectangular cover adapted to rest on the top edges of said body walls and having a pair of ears projecting downwardly from its rear end.

Container Devices, William H. Wheeler, New York, N. Y. (to Airkem, Inc., New York, N. Y.). U. S. 2,765,950, Oct. 9. A container device of the character described comprising a container part of relatively flat and circular contour having a central hub portion providing a socket therein.

Container Devices, William H. Wheeler, New York, N. Y., (to Airkem, Inc., New York, N. Y.). U. S. 2,765,951, Oct. 9. A container device comprising a container part of relatively flat and circular contour having at the axis thereof a hub portion providing a socket therein.

Tear-Strip Can Opener, Andrew Sorum, Crookston, Minn. U. S. 2,765,952, Oct. 9. A device for opening metal containers having tabbed key-strip closures, comprising a holding structure having a hand grip and an open-ended sleeve secured rigidly and laterally to the outer end of said handle.

Paperboard Cartons, Rolf A. Samsing, Braintree, Mass. U. S. 2,765,972, Oct. 9. A folding carton embodying a one-piece paperboard blank folded onto itself along two parallel fold lines at the two side margins of the blank and into adhesively attached overlapped relation.

Bag and Closure Therefor, Cornelius M. Phipps, Neenah, Wis., and Donald R. Zimmerman, Wheaton, Ill. (to Marathon Corp., Rothschild, Wis.). U. S. 2,765,974, Oct. 9. In combination, an article-containing bag and a closure therefor, the bag having a pair of opposite main panels and a pair of inwardly folded bellows panels connecting sides.

Apparatus for Applying Tear Strings to Wrappers, Fred C. Van Arsdell, Medina, Ohio, (to The Quaker Oats Co., Chicago, Ill.). U. S. 2,766,665, Oct. 16. In combination with a belt conveyor carrying spaced-apart wrappers projecting laterally beyond one edge of the belt, apparatus for depositing a length of string linearly on each wrapper.

Machine for Forming Windowed Cartons, John G. Vergobbi, Quincy, Mass., (to Pneumatic Scale Corp., Ltd., Quincy, Mass.). U. S. 2,766,666, Oct. 16. In a machine for forming windowed carton blanks, a conveyor for continuously advancing carton blanks having precut window openings, said conveyor including spaced fingers for engaging and advancing successive carton blanks.

Plural Compartment Vials and Syringe Cartridges, Joseph F. Greene, Vineland, N. J., (to Owens-Illinois Glass Co.). U. S. 2,766,755, Oct. 16. In a plural-compartment vial, or syringe cartridge, a pair of open-ended glass cylinders arranged end to end in axial alignment and a frangible partition.

Vacuum and Seal Type of Receptacle, Earl S. Tupper, Upton, Mass. U. S. 2,766,796, Oct. 16. A combined seal and receptacle comprising a lower shallow article-receiving member of resilient plastic material having a central flat, horizontal wall and having an upwardly offset peripheral and inverted groove relative thereto.

Gathering Device, George T. C. Cowen, Somerville, N. J. U. S. 2,766,797, Oct. 16. A gathering device of the character described comprising a substantially rectangular fabric sheet, a grommet secured in and extending through said sheet adjacent each corner thereof and a flexible strand.

Apparatus for Securing Thermal-Activated Adhesives, Harry L. Gibson, Los Angeles, Calif. U. S. 2,766,810, October 16. In the sealing apparatus of the class described, a floating platen resiliently mounted to yieldably move into alignment with a mating operating platen.

Dispensing Cartons Provided With

Imagination

AN INTEGRAL PART OF THE CONTAINER WHEN MARYLAND GLASS TAKES OVER YOUR DESIGN PROBLEM!

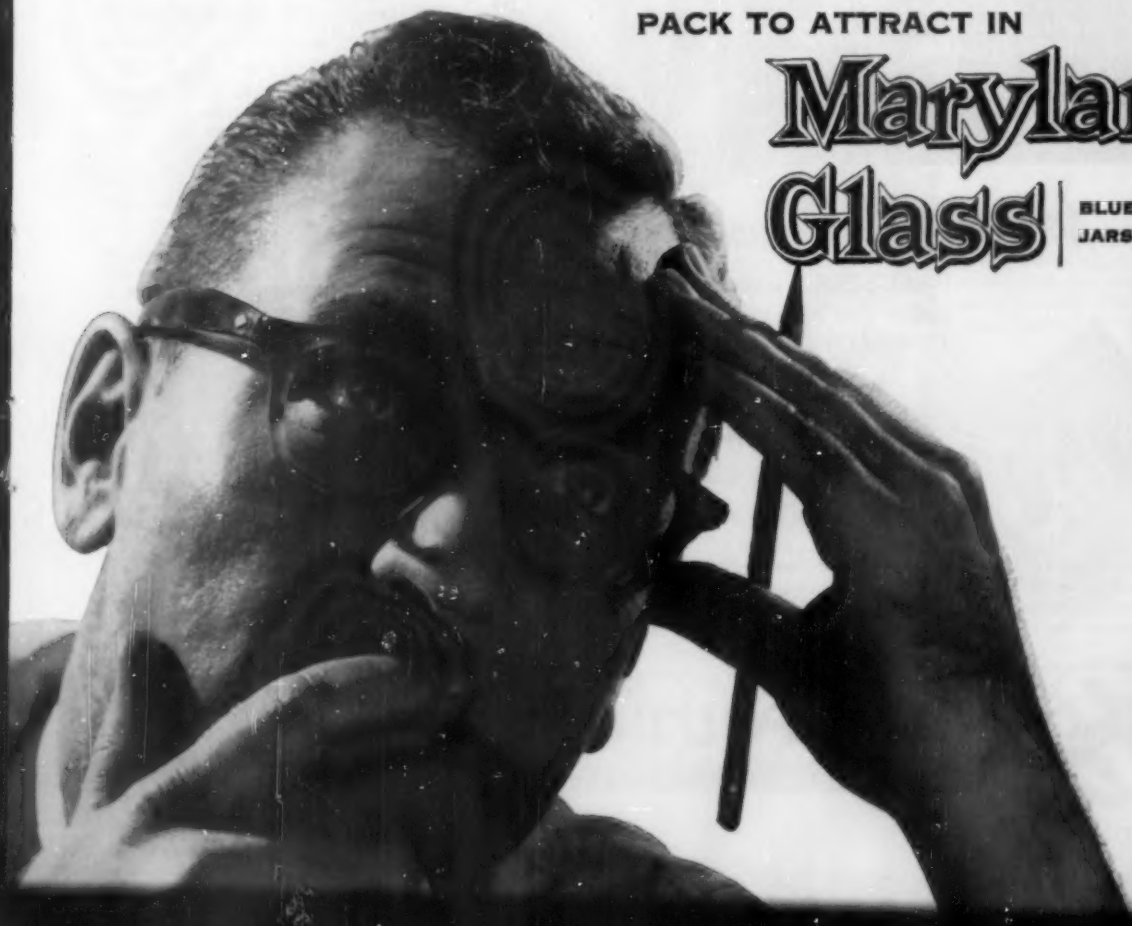
When you drop a packaging problem in our lap, the end result is more than a glass container. It is an *idea* . . . born of restless imagination, shaped by skilled hands, backed by years of sound experience. Our creative staff gives you a selling package that packs well, ships well and pushes your product on the shelf. For a successful solution to your design problem, contact MARYLAND GLASS CORPORATION, 2147-53 Wicomico St., Baltimore 30, Md.

STOCK DESIGNS
—A variety in blue or flint glass and a complete range of sizes is ready for immediate shipment.

PACK TO ATTRACT IN

Maryland Glass

BLUE OR FLINT JARS AND BOTTLES



Carnation Instant Milk *features* SEAL-SPOUT.

... for easy, non-waste pouring

SEAL-SPOUT is the aluminum pouring spout with high merchandising appeal. Packages with SEAL-SPOUTS are—

easier to open
easier to pour
easier to close
better to store

Housewives favor these conveniences. They mean less spillage in using and storing—a greater protection of products.

For details, contact

SEAL SPOUT Corp.

MOUNTAINSIDE, NEW JERSEY

U.S. patents digest

Cutters, Wendell T. Burbank, Three Rivers, Mich., (to Sutherland Paper Co., Kalamazoo, Mich.). U. S. 2,766,877, Oct. 16. A dispensing carton including a front wall and a cover having a closure flap positioned on the inner side of the front wall.

Carboy Crate, James Russell Wallace, Lansing, Mich., (to Carrier-Stephens Co., Lansing, Mich.). U. S. 2,766,899, Oct. 16. A protective crate for a bottle comprising a plurality of substantially square frame members, one of which forms the top of said crate and one of which forms the bottom.

Reinforced Paper Strap and Bag Containing Same, Harford K. Steen, Newburgh, N. Y., (to Interstate Bag Co., Walden, N. Y.). U. S. 2,766,925, Oct. 16. A paper strap consisting of a continuous flat strip composed of relatively thin tough paper, folded to form a strap.

Flexible-Walled Containers, Jay D. Thompson, Minneapolis, Minn. (to Bemis Bro. Bag Co., Minneapolis, Minn.). U. S. 2,766,926, Oct. 16. A tubular bag of flexible material adapted to be infolded to flat condition.

Disposable Receivers, James S. Wallace, Seattle, Wash. U. S. 2,766,927, Oct. 16. A receiver for the purpose indicated, comprising an envelope of impervious flexible material, open along one edge only, with its open edge portion folded back exteriorly of the envelop proper, as a cuff.

Acylation of Refined Wood Pulp, Kenneth Russell Gray, Judson Harry Holloway and Berwyn Brainerd Thomas, Shelton, Wash., (to Rayonier Inc., Shelton, Wash.). U. S. 2,767,169, Oct. 16. As a new article of manufacture, relatively dry refined wood pulp in sheet form, having incorporated therein a glycol ether compound.

Clasp, Donato J. Lombardi, Jr., North Providence, R. I., (to Fulford Mfg. Co., R. I.). U. S. 2,767,452, Oct. 23. A clasp for securing sheaves of material together, comprising two upstanding arms having means joining them together at one end thereof.

Label Assembly, David B. Harris, San Gabriel, Calif. U. S. 2,767,495, Oct. 23. A protected label assembly or the like, comprising a generally rectangular label sheet adapted to receive indicia on the front side thereof and having a pressure-sensitive adhesive coating on the back side thereof.

Paper and Paper-Like Materials Having a Remoistenable Adhesive Coating, Harry A. Toulmin, Jr., Dayton, Ohio, (to The Commonwealth Engineering Co. of Ohio, Dayton, Ohio). U. S. 2,768,096, Oct. 23. Pre-gummed paper-like sheet material having a normally substantially non-tacky but potentially adhesive-by-moistening coating.

Heat-Sealing Thermoplastics, Victor H. Hasselquist, Akron, Ohio, (to B. F. Goodrich Co., New York, N. Y.). U. S. 2,767,769, Oct. 23. An apparatus useful

MORNINGSTAR 105 years

PAISLEY 25 years

Serving PAPER PACKAGING all the way!

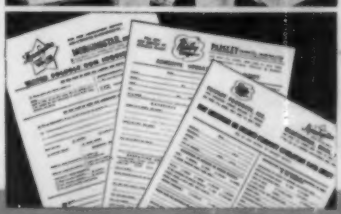
FREE...

Morningstar-Paisley Anniversary Folder... describes starches, dextrines, resins, adhesives used in the manufacture of paper and paperboard, and of packages and paper products of all kinds. Every step of the way *from* paper mill sizings, surface coatings, finishes, *through* all converting into cartons, shipping cases, cups, fibre cans, bags, envelopes, *to* the final sealing and labeling for consumer outlets, paper packaging is served—from beginning to end—with Morningstar-Paisley scientific service.

PLANTS: Morningstar-Paisley, with plants and warehouses from coast to coast, processes all our raw materials, which we then manufacture into products for all American industry.

LABORATORIES: Wherever you are, our skilled chemists are near. Familiar with all raw materials known to the science of paper, paperboard manufacture and adhesion, chances are they can help you increase production, cut costs, improve quality.

PACKAGING: For 25 years, Paisley has kept ahead on new mass production techniques and improved machinery in paper converting and packaging. We supply packaging adhesives for every labeling, sealing, wrapping, assembling and shipping operation.



SERVICE: Write for "Operation Data Sheet". Free scientific laboratory analysis of your data pinpoints ONE best, most economical product and method for your specific operation. Trial shipment on approval, if wanted.

Morningstar SCIENTIFIC STARCH SERVICE

Paisley® SCIENTIFIC ADHESIVE SERVICE

Headquarters for Glues, Pastes, Resin Emulsions, Latex Cements, Starches, Dextrines, Water Soluble Gums, and Related Chemical Products for all Packaging, Labeling and Industrial Manufacturing Operations. *Plants:* New York • Chicago • Hawthorne, N. J. • Houlton, Maine • St. Louis • Los Angeles • San Francisco • Offices in all principal cities.

MAIL THIS COUPON FOR

FREE ANNIVERSARY FOLDER!

PAISLEY PRODUCTS, INC.—MORNINGSTAR, NICOL, INC.
530 W. 51st Street, New York 19, New York
1770 Canalport Avenue, Chicago 16, Illinois

Gentlemen:

Please send me at once a copy of your free Anniversary Folder . . also information or data sheets indicated.

☐ **Adhesives** ☐ **Water Soluble Gums** ☐ **Resin Emulsions**
☐ **Starch and Dextrines** ☐ **Paper Mill Sizings**

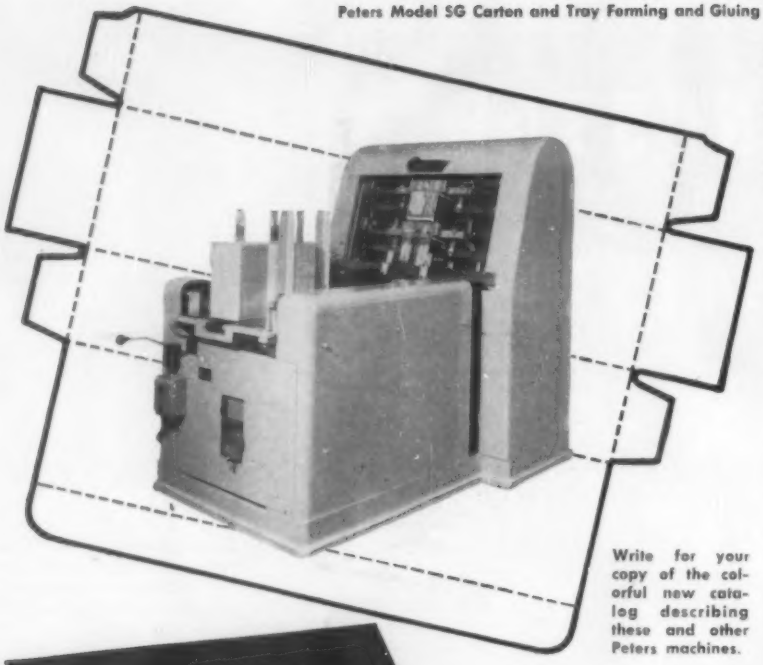
Name_____

Company_____

Address_____

City_____ **Zone**____ **State**_____

Peters Model SG Carton and Tray Forming and Gluing Machine



produces cartons and trays at speeds up to 175 per minute

At cost-cutting high speeds, the fully-automatic Model SG converts low cost blanks into perfectly shaped glued cartons and trays for packaging many products . . . cookies, crackers, confections, frozen foods, cigarettes, fruits, vegetables and others.

closes up to 150 cartons per minute

Investigate Peters Model CCY Carton Folding and Closing Machine . . . it automatically folds and tucks carton tops to securely close up to 150 cartons per minute.

Write for your copy of the colorful new catalog describing these and other Peters machines.

Peters MACHINERY COMPANY

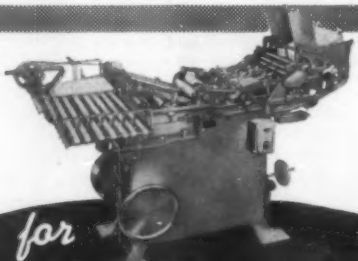
4712 Ravenswood Avenue

Chicago 40, Illinois • Phone: LOngbeach 1-9000

Gutenburg had his problems too . . .
But wasn't nearly as lucky as you
He didn't have McCutcheon in the picture
to hand him ink of the perfect mixture . . .
'cause

McCUTCHEON Thinks in ink

McCUTCHEON BROS. & QUALITY, INC.
Manufacturers of Fine Printing Inks
2653 N. REESE ST., PHILADELPHIA 33, PA.
BRANCHES
ST. LOUIS • BUFFALO • ROCHESTER



for
IMPRINTING
CODING

THE MULTIPRESS

MARKINGS OF PRINTING-PRESS-QUALITY ON

FOLDED CARTONS • LABELS • MATERIALS • PAPER PRODUCTS • BAGS • ADVERTISING LITERATURE • FLAT CONTAINERS

IMPRINTING

LOT NUMBERS • DATES • FLAVORS • SIZES • PRICES • CONTENTS • COLORS • STYLES • CATALOG NUMBERS • BLOCKOUTS • DEALER IMPRINTING

CONSULT VERNER ON IMPRINTING PROBLEMS

B. VERNER & CO., INC.
52 DUANE STREET, NEW YORK 7, N.Y. BA 7-1466-7

U.S. patents digest

in heat sealing thermoplastic materials comprising rigid material engaging and pressing means.

Oscillating Shear for Cutting Trapezoidal Shapes, Simeon Budlong and Frederick M. Littell, Chicago, Ill., (to F. J. Littell Machine Co., Chicago, Ill.). U. S. 2,767,789, Oct. 23. In oscillating shear mechanism, the combination of a frame providing cutting knives for cutting metal strip material.

Package-Dispenser for Rolled Strip Material, Milton W. Hedin, St. Paul, Minn., (to Minnesota Mining & Mfg. Co., St. Paul, Minn.). U. S. 2,767,833, Oct. 23. An article of manufacture comprising a single blank of cut and scored material which, when folded and secured into container formation, is adapted to constitute a package dispenser for a roll of strip material wound upon an annular core.

Tape Dispenser and Applicator, Benton W. Laverty, San Francisco, Calif. U. S. 2,767,872, Oct. 23. An attachment for a hollow tape holder having a central hub adapted to support a roll of tape for rotation thereon and which holder has an outlet at one side for tape from such roll.

Labeling Machine, Alten E. Whitecar, Westville, N. J., (to Smith, Kline & French Laboratories, Philadelphia, Pa.). U. S. 2,767,873, Oct. 23. In a labeling machine adapted to apply a label to a container surface, supports for opposite ends of a container, one of said supports being retractable.

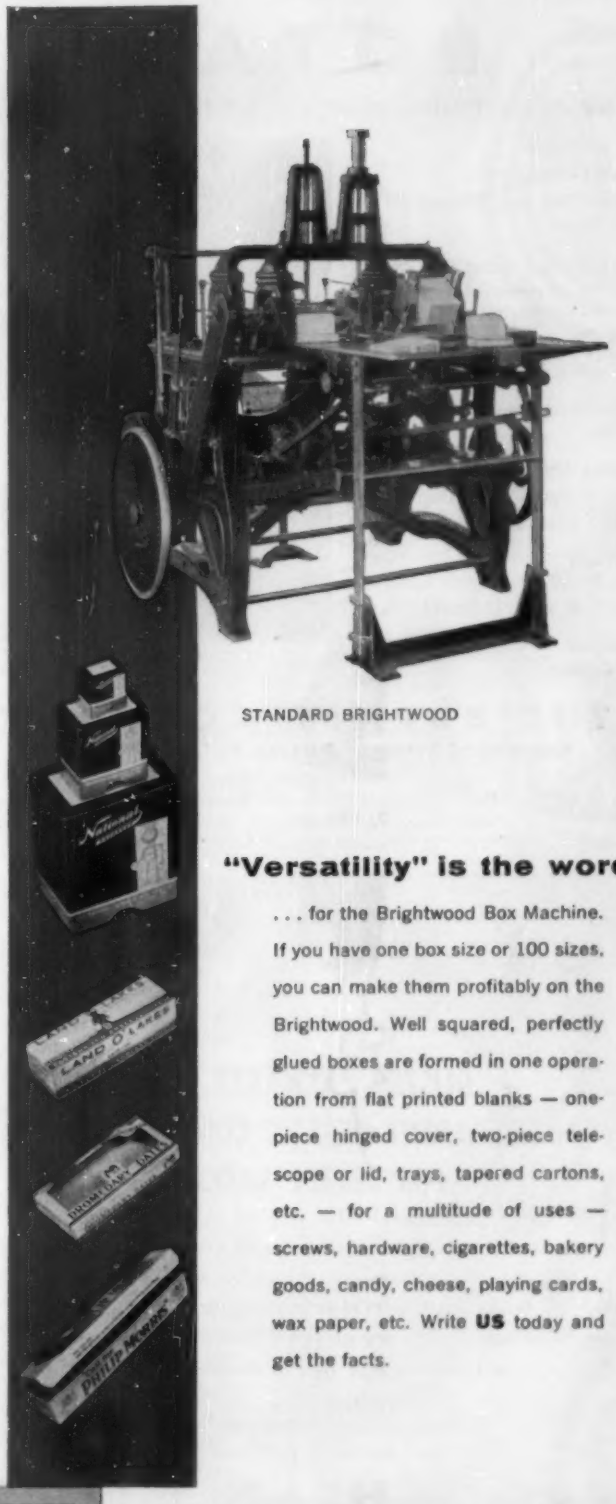
Handled Cartons, Kenneth T. Buttery, Kalamazoo, Mich., (to Sutherland Paper Co., Kalamazoo, Mich.). U. S. 2,767,901, Oct. 23. A collapsible-handled carton formed of an integral cut and scored blank comprising hingedly connected front, rear and end walls and having collapsibly associated bottom members.

Envelope or Like Article Adapted for Attachment to a Button, Walter Lee Hiersteiner, Kansas City, Mo., (to Tension Envelope Corp., Kansas City, Mo.). U. S. 2,767,902, Oct. 23. An envelope for attachment to a garment by means of a button secured to the garment.

Weighing Unit, James W. Ballard and William R. Horst, Dayton, Ohio, (to The Commonwealth Engineering Co. of Ohio, Dayton, Ohio). U. S. 2,767,974, Oct. 23. In a weighing device, a pair of load cells positioned in side-by-side relation to be similarly accelerated by transient forces.

Weighing Device, William R. Horst and James W. Ballard, Dayton, Ohio, (to The Commonwealth Engineering Co. of Ohio, Dayton, Ohio). U. S. 2,767,975, Oct. 23. In combination, a weighing device wherein the device is subject to acceleration other than that due to gravity.

Push Button Control System for Electrically Actuated and Controlled Tape Measuring and Dispensing Machines, Herbert W. Hempel, Belleville, Ill., (to



STANDARD BRIGHTWOOD

"Versatility" is the word

. . . for the Brightwood Box Machine. If you have one box size or 100 sizes, you can make them profitably on the Brightwood. Well squared, perfectly glued boxes are formed in one operation from flat printed blanks — one-piece hinged cover, two-piece telescope or lid, trays, tapered cartons, etc. — for a multitude of uses — screws, hardware, cigarettes, bakery goods, candy, cheese, playing cards, wax paper, etc. Write **US** today and get the facts.

PACKAGING MACHINERY MANUFACTURERS INSTITUTE PMMI MEMBER

U. S. AUTOMATIC BOX MACHINERY CO., INC.

122 ARBORETUM ROAD, ROSLINDALE, BOSTON 31, MASS.

Branch Offices: New York • Chicago • Springfield, Missouri
James C. Hale Co., Los Angeles, San Francisco • R. S. Gold, Toronto

ROTAX

Tablet-capsule counting and filling machine

Comes complete . . . no additional parts needed for any operation!

1. Adapts to more counting-filling jobs than any other machine available . . . fills into any container!
2. Changeover time from item to item: approximately 5 minutes.
3. Will stock lozenges and tablets of all sizes.
4. Standard machine, with no extra parts, is capable of counting and filling uncoated tablets from 3/16" up . . . capsules from No. 5 to No. 000 . . . coated tablets from 9/32 to 19/32 inches.
5. Unmatched for ease of operation and clean-up.

Why not write today for descriptive brochure.

THE BURNET COMPANY

East Midland Avenue Paramus, N. J. COlfax 1-2250

Established 1889

Sole U.S. and Canada distributor of Rotax

America's most versatile transparent packaging specialists
BLISTER PACKAGES...
TRANSPARENT PLASTIC CONTAINERS
FOR BETTER SALES
Your product will be singled out at the point of purchase through our custom-made creative packaging . . . Blister packaging in all forms, beaded transparent boxes (quonset and rectangular), acetate boxes (rectangular, round and oval), tubes, and sleeves.
• Thermoforming • Plastic partitions and platforms
• Industrial parts • Toy components
We invite your inquiries on your packaging problems.
Plastofilm INCORPORATED
916 WEST UNION AVENUE P. O. BOX 321, WHEATON, ILLINOIS
REPRESENTATIVES: CHICAGO, CLEVELAND, DETROIT, NEW YORK, TACOMA

U.S. patents digest

Marsh Stencil Machine Co., Belleville, Ill.). U. S. 2,767,981, Oct. 23. In a tape measuring and dispensing machine comprising a supporting frame, a tape-strip feed roller rotatably mounted thereon.

Container, Donald W. Hill, Ladue, Mo. (to Crown Cork & Seal Co., Inc., Baltimore, Md.). U. S. 2,768,667, Oct. 30. A generally box-like container having a plastic body, said body comprising a bottom and outwardly tapering side walls extending upwardly therefrom.

Severing Means in Web-Feeding Machines, George Richard Roberts, New Born, Longfield, Kent; Ronald Thomas Heathcote, Dartford, Kent, and Ernest James Lister, Orpington, Kent, England (to Bowaters Development & Research, Ltd., London, England). U. S. 2,768,690, Oct. 30. In a web-feeding machine having means for drawing said web from a supply, web-severing means comprising a pair of rotatable drums between which said web passes in the course of its travel.

Picture-Tube Shipping Container, Robert Benjamin Callahan, Emporium, Pa., (to Sylvania Electric Products, Inc.). U. S. 2,768,737, Oct. 30. A package comprising a carton, rectangular in cross section, a lower pair of spaced-apart vertical partition walls resting on the bottom of the carton.

Carton for Cylindrical Objects, Grover C. Currie, Charlotte, N. C., (to Dacam Corp., Charlotte, N. C.). U. S. 2,768,741, Oct. 30. In an open-ended carton having side, top and bottom walls adapted to receive a plurality of cylindrical articles having a rim on each end edge.

Sealing Members or Elements, Eugene Guinet, Lyon, France, (to William Herter, Paris, France). U. S. 2,768,762, Oct. 30. A re-usable resilient cap seal for a container having an opening defined by an annular wall.

Carton, Arthur J. Weiss, West Englewood, N. J., (to Robert Gair Co., Inc., New York, N. Y.). U. S. 2,768,776, Oct. 30. A folding carton having a bottom panel, side walls and end walls extending from the edges of the bottom panel, said side walls and end walls having inwardly folding flaps.

Cover-Locking Cartons, William F. Barrington and William Skillen, London, Ontario, Canada, (to Somerville, Ltd., London, Ontario, Canada). U. S. 2,768,777, Oct. 30. A cover-locking carton comprising a base having front, rear and end walls forming a carton shell open at the top and a cover hingedly connected to the rear wall thereof.

Sliced Bacon Package, John H. Bonini, Appleton, Wis. (to Marathon Corp., Rothschild, Wis.). U. S. 2,768,779, Oct. 30. A paperboard blank for wrapping a material which is characterized by relatively thin, generally rectangular slices arranged in edge-overlapping relation to form a generally curvilinear upper contour.

POTDEVIN

Flat and Square Specialty Bag Machine

To all the other flexible features of POTDEVINS F&S machine, perforated cut-off has been added. Preferred by converters for its outstanding high speed and patented vertical delivery. Produces practically all popular sizes. Can be connected to a Potdevin multi-color flexographic printing press.

Send for literature.

POTDEVIN MACHINE CO.
294 North Street • Teterboro, N. J.

Designers and manufacturers of equipment for Bag Making, Printing, Coating, Laminating, Gluing and Labeling.

---

no need to, once you discover the SIMCO "Midget" Static Eliminator!

Why cut out paper dolls when you can cut out static much more easily? The SIMCO "*Midget*" Static Eliminator is *guaranteed* to be the most effective, yet least expensive means available ... for *all* packaging machinery, including cutting, slitting, bagmaking, wrapping, and filling machines! It is also adaptable to all types of materials, including paper and synthetic films. Write today for full information about your problem.

the SIMCO company
920 Walnut Street, Lansdale, Pa.

OUR LONG SUIT IS

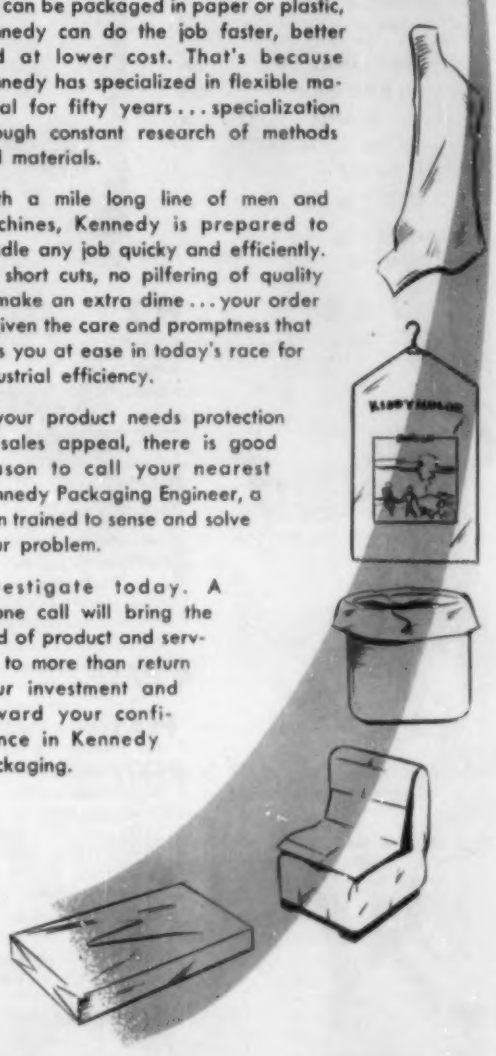
SPECIALTY PACKAGING

If it can be packaged in paper or plastic, Kennedy can do the job faster, better and at lower cost. That's because Kennedy has specialized in flexible material for fifty years ... specialization through constant research of methods and materials.

With a mile long line of men and machines, Kennedy is prepared to handle any job quicky and efficiently. No short cuts, no pilfering of quality to make an extra dime ... your order is given the care and promptness that puts you at ease in today's race for industrial efficiency.

If your product needs protection or sales appeal, there is good reason to call your nearest Kennedy Packaging Engineer, a man trained to sense and solve your problem.

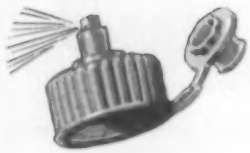
Investigate today. A phone call will bring the kind of product and service to more than return your investment and reward your confidence in Kennedy Packaging.



Kennedy

CAR LINER AND BAG CO., INC.
SHELBYVILLE 6, INDIANA

NEW YORK DETROIT CLEVELAND PORTLAND PHILADELPHIA
SAN FRANCISCO ATLANTA CHATTANOOGA CHICAGO
SEATTLE DENVER JACKSONVILLE LOS ANGELES BUFFALO



POLYETHYLENE PLUGS — Available with dispensing orifice or as sealing plug with solid top.

POLYETHYLENE APPLICATOR — Fits most standard caps. Packaging procedure: Fill bottle, drop in applicator, screw on cap. Liner flange snaps securely behind threads. Well-type caps unnecessary.

POLYETHYLENE SNAP CAP — Provides positive seal for use with cosmetics, foods, pharmaceuticals and industrial type products . . . in conjunction with glass, metal or "Poly" containers.

POLYETHYLENE "SPOUT 'n CLOSURE" — Multi-purpose unit provides excellent primary seal (closed spout) snip tip dispenser, attached re-seal closure.

POLYETHYLENE LINER — Molded with concentric sealing rings, provides cushion resiliency for positive, lasting seal. For metal and plastic caps.

POLYETHYLENE "CAP 'n BRISTLE" — Revolutionary, one piece bristle topped closure dispenses and brushes in one easy motion.

POLYETHYLENE "CAP 'n CLOSURE" — Provides excellent primary seal. One piece action-type design combines functional dispensing action with easy-to-use re-seal caps. Vertical or horizontal atomizer, directional dispenser and dropper effects can be achieved.

POLYETHYLENE FUNNEL—A practical promotional item. Handy, lightweight, unbreakable unit for cosmetic, chemical or similar products.

STULL products are available in a range of popular sizes and colors. Send for FREE illustrated Stull "Sealiner" catalog of over 75 stock fitments and closures.

Stull ENGRAVING COMPANY
223-B Banta Avenue, Garfield, New Jersey

Plastic research aims

New plastics tough enough for automobile bodies, aircraft and structural members for buildings are predicted by Dr. Harold Gershinowitz, president of the Shell Development Co. New bombardment processes, he said, will change the nature of the ordinary material, giving it extraordinary new properties and opening the way for new products and new industries.

Shell's new 3-million-volt electron accelerator is being used in research designed to develop new plastics and to study the effects of radiation on oil products. Studies made with the accelerator will be part of the broad program of industrial research at the 1,500-man Emeryville, Calif., laboratory. It was in this laboratory that vapor-phase-inhibitor chemicals and new anti-oxidant chemicals for packaging were first developed.

"While the goals of such research are the utilization of available raw materials and the creation of products, it is Shell's policy to base the work on fundamental studies of physics and chemistry," Mr. Gershinowitz pointed out. Experience has shown that very practical results have come from this apparent "ivory tower" approach, he added. He credited such basic research with Shell Chemical Corp.'s production of allyl chloride, allyl alcohol, epoxy resins, glycerine, acrolein and peroxides. The epoxy resins are used in adhesives and can coatings.

Cans

[*Continued from page 106*]

that formerly was required for soldering. Increased attention to container appearance and greater use of lithography in preference to paper labels is a pronounced trend. Where soldered side seams still must be used, a technique has been developed for coating the seam with enamel matching the background color of the label.

Improvements in construction, for both function and convenience, are legion. Among them:

- Improved tracking of the key on key-opening cans, consisting of a beaded rip strip that acts like tiny railroad tracks; each turn of the key automatically locks one section of rip strip against the next.
- Elimination of the exposed cut

ROL-FEED
Heat-Seal
DUMATIC LABELERS

These up-to-the-minute machines are designed to take labels from a continuous roll—cut them to the desired length, position them and affix them in one complete automatic operation. Whatever your need—partial or complete wrap around, whether for round, square or odd-shaped containers, a Dumatic machine will do the job at speeds up to 100 or more per minute. As optional equipment a coding device for imprinting size, date, price, etc., is available.

Write today for brochure "K"

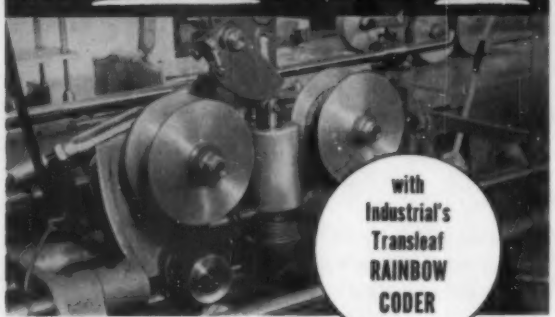
GLOBE TICKET COMPANY

A Nation-Wide Service

112 N. 12th St., Phila., Pa.

---

you SAVE MONEY . . . imprint BETTER



If you want better imprinting at lower cost for bigger profits, the Rainbow Coder is your answer!

Special head and pressure arrangement assure sharp, clear quality controlled impressions in a wide color range—on any material or surface that will accept hot roll leaf imprinting. Approx. 200 impressions cost about *one cent!*

Easy and economical to install, the Rainbow is synchronized with packaging machine speed it serves—and does not require an operator. No ink, no makeready, little maintenance.

For complete details, write today. New marking equipment catalog available on request. Dept. MP

ime INDUSTRIAL MARKING EQUIPMENT
454 BALTIC STREET | company, inc.
BROOKLYN 17, N.Y. | MAin 4-2601

---

the customer helps you sell him again when you use

again
again

Lermer

plastic containers

again
again
again

Shatterproof, Lermer plastic containers have high utility in themselves. Your customers will find them useful for keeping anything from fishing flies to pins and needles. You benefit too, from these extra uses. The customer places new values on your Lermer packaged merchandise, and the extra brand exposure you get assures recognition when he buys again.

COMPARE THESE UNEXCELLED ADVANTAGES OF LERMER PLASTIC CONTAINERS:

- **They Are Shatterproof, Assuring Customer Good Will**
- **75% Lighter Than Glass, Saving You Money in Packing and Shipping**
- **Not Affected by Alcohols, Alkalis, Weak Acids**
- **Tasteless and Odorless**
- **Available Clear or Opaque, in a Host of Bright, Lustrous Colors**
- **Can be Printed or Decorated During Manufacture**
- **Always Uniform for Easy Labeling, Filling and Capping**
- **Available with Metal or Plastic Closures**

Write for complete catalog information and samples. Detail your problems and let our creative staff help. Lermer is famous for Experience, Service and Creative Engineering.

Lermer PLASTICS, INC. Pioneers and Specialists in Plastic Containers

502 South Avenue, Garwood, New Jersey

REPRESENTATIVES IN THESE CITIES: Rochester, Memphis, Miami, Cincinnati, Columbus, Cleveland, Chicago, Detroit, Minneapolis, San Francisco, Los Angeles, Toronto, Philadelphia.

Crescent Ink & Color Co.

Proudly Presents

SPECTRUM

The Most Important Advance in Printing Ink Service Since Printing Ink Was Invented

Crescent's Spectrum Service is created to reduce your costs, save you money, and make your work more profitable for you. It gives you all the advantages of complete custom ink service plus the economies of mass production. With Crescent's Spectrum Service you gain these advantages:

1. **It Saves Time.** Press down-time is reduced. Waiting for color okays is practically eliminated. There are no delays for ink at critical moments.
2. **It Saves Money.** Crescent's Spectrum Service uses a small assortment of carefully selected inks to cover 95% of the presswork in most shops.* You buy and stock them in the best economic units for your needs, at the best quantity prices. Purchases of small expensive trial batches are discarded. But most of all, faster press preparation and less down-time save real money.
3. **It Saves Material.** The proper amount of ink is always on hand or easily prepared. No overestimates are necessary—and that means no dead inventory on your shelves.
4. **Our Knowledge and Experience Is Added to Yours.** This builds "know-how" and flexibility in your organization—a valuable plus asset.
5. **It Enables Better Planning and Production Control.** With all operations under your control, planning and production are more easily handled.

Send for Brochure Giving Full Details

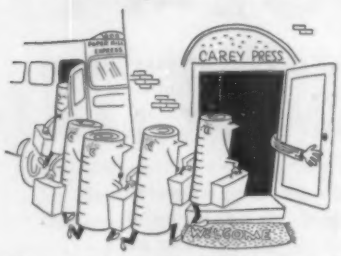
*These Inks Contain Du Pont "Valron"

Look to Crescent for Ink Leadership

Crescent INK & COLOR COMPANY

INKS FOR LETTERPRESS · LITHOGRAPHY · FLEXOGRAPHY · ROTOGRAVURE

Roll Paper on Hand



Meets Any Rush Demand

Stretching printing budgets is an old Carey custom with a new economy twist — thanks to our unique roll-fed presses. For unusual printing facilities that top firms depend on, call

Art Friedman, Sales Manager • CH 4-1000

62 YEARS OF ACHIEVEMENT

PACKAGE INSERTS
CIRCULARS AND CATALOGS
BOOKS AND PUBLICATIONS
SCHOOL WORK BOOKS
REFERENCE MANUALS
DATA BOOKS AND DIARIES
PHOTOGRAPHIC BOOKS

CAREY PRESS Incorporated

CAREY PRESS CORP. • 406 W. 31st ST., N. Y.

BUSINESS BUILDING BOXES

New Package for Family of BEST SELLERS . . .

Designed for self service and open display selling is this new package for the entire family of best sellers produced by the Schacht Rubber Co., Huntington, Ind. The merchandise is displayed in a precision pressure-formed 10 pt. cellulose acetate cavity which is heat sealed to the front of a single thickness card.

PAPER PACKAGE COMPANY

1036 NORTH CAPITOL AVENUE · INDIANAPOLIS 9, INDIANA

BRANCH OFFICES: CHICAGO, DETROIT, CINCINNATI, ALLIANCE, OHIO

edge on the ring of cans used for water-base paints, rolling it under to the outside.

- An end seal for beer cans that virtually eliminates double-seam metal exposure, accomplished by special application of the end-seam compound.
- A shock-resistant lubricant that protects the beer can's enamel lining in the critical shoulder area against abrasions when the ends are "rolled" onto can bodies under great pressure.
- Polyethylene nozzles with no-drip features and corrosionproof plastic caps for detergent cans.
- A round, lock-top removable cap for cans which is said to combine all the desirable features of hermetic sealing, tamperproofness and easy reclosure—used initially for instant coffee.
- Stacking facility for nozzle-top cans by providing a corresponding recess in the base of the can.

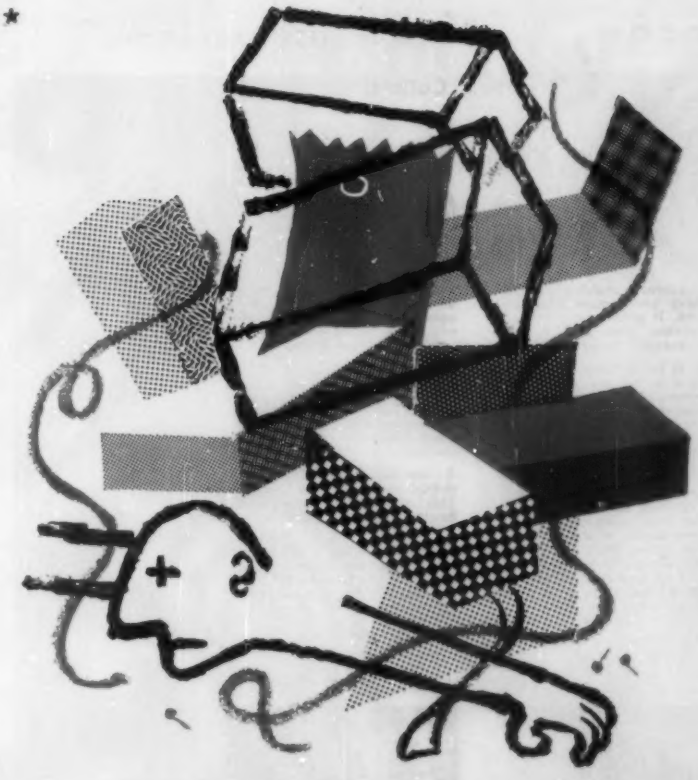
What's ahead

So rapidly are things moving, it has been authoritatively predicted that the metal cans of five years from now will be virtually unrecognizable by today's standards. Not only, it is said, will the future can be tinless—it will be more efficient, more economical and capable of handling a great many more products.

Aluminum has been investigated through the years and is again under test as an alternate material for tin, steel or both. Commercially pure aluminum and its alloys show promise for some food products either as a base material or as a coating on the steel base, although aluminum so far doesn't have the universal applicability of tinplate in many instances.

Aluminum coatings have been experimentally applied to steel strip in three ways: electrolytically, using a special solution; by cladding (rolling aluminum and steel together), and by vapor deposition in a vacuum.

Aluminum cans have been used in England, Norway and other European countries for noncorrosive foods and have proved satisfactory there because of quicker turnover of foods, the higher cost and lower availability of tinplate or sheet steel in those countries, and the slow



get out from under your packaging problems

Chances are we can improve your packaging picture considerably—we've been solving flexible packaging problems for many of America's "blue chip" products for over 30 years . . . in papers, foils, films, laminates.

We have the men, the machines, the experience to tackle *any* packaging puzzle . . . and the horse sense to know that even the best packaging in the whole history of packaging isn't worth a hoot unless it's in your plant when you want it—not just most of the time, but *every* time!

Why not get in touch with us. We'd like nothing better than to sit down and talk packaging problems with you—*your* problems!

Oneida
PAPER PRODUCTS, INC.
10 Clifton Blvd., Clifton, N. J.
Los Angeles, Cal. • Baltimore, Md. • Centralia, Ill. • Sales Offices in Principal Cities

CONVERTERS AND COLOR PRINTERS OF QUALITY PACKAGING
from: Glassine, Cellophane, Polyethylene, Vinyls, Parchment, Sulphite, Foil, Kraft, Waxed, Coated and Laminated Materials.

Bracon . . . SQUEEZE-TO-USE PACKAGING

SALES SOAR . . . *when package travels!*

Give a lady a hand cream that soothes, softens and is convenient to carry and she'll make it her constant companion. She gets all this with Northam Warren's new Cutex Hand Cream now packaged in a lightweight plastic tube. BRACON's new internal coatings inside the polyethylene tubes keep the sheer lanolin, silicones and essential oil formula safe and always ready for application.

Whatever your product . . . cream, liquid or powder . . . there's a BRACON container to increase its merchandising appeal. Striking multi-color printing attracts buyer's attention — *and they buy again* because BRACON tubes, bottles and squeeze cans *will not* dent, tear, corrode, crack, crush, break or leak. BRACON tubes *never roll up* and this whole line of rugged, yet pliable, packaging offers unique point-of-sale opportunities.

Would your sales soar . . . your markets expand, if your product enjoyed *all day use?* Get all the details on BRACON packaging from your Bradley representative or write:

BRADLEY CONTAINER CORPORATION

Maynard, Mass. — *New York, Chicago, Los Angeles, Toronto*

speed and less highly mechanized operations there in both manufacture and canning.

An unusual approach to the aluminum container here has been the test marketing of aluminum oil cans with a reclaiming procedure for filling stations. In Germany a brewery operates a fully integrated line which takes raw aluminum in ingot form, rolls it, stamps it, forms a can by impact extrusion, labels the can by a roller process, fills it with beer, seals it and cartons and ships the finished filled package. A similar line is now in test operation by a Western brewer in this country who hopes to reclaim and remelt used cans. One-piece, impact-extruded aluminum aerosol cans have recently been announced in this country.

Research on modifying manufacturing practices to improve the corrosion resistance of steel sheets and the development of chemical surface treatments of the resulting sheets are now in progress and give promise of yielding improved products.

Looking further into the future, we see the possibility that entirely different production methods based on this research may eventually obsolete present can plants and production equipment. The amount of machinery and the sizes of factories may be reduced by half and the smaller plants, it is said, will be even more productive than the larger ones we have today.

Some of the things to come which will reflect better and cheaper containers are use of precoated coil stock in place of sheet steel and other improved manufacturing techniques which should boost production speeds up to 1,000 cans per minute. Improved soldering techniques (and eventually high-speed welding to eliminate soldering) will produce better containers at a reduced cost.

New organic sealing materials for cemented-side-seam cans to withstand high-temperature processing will be developed and increased attention will be given to container appearance and design of new containers on a broader functional basis.

In 147 years, no rival container has been able to displace the metal can as the all-around workhorse of the consumer-packaging field. And with the improvement still to come, no new champion is in sight.

STOP *GUESSING*
START *SAVING!*

$65

TIME-RECORDER + TOTALIZER

gives complete production data continuously... automatically

Now get complete, accurate, documented production data on any machine, process, operation. Eliminates costly, inaccurate spot-checks, time studies.

TR+T records on continuous 4-month tape. Uses no ink. No maintenance. Thousands in use in large and small plants.

Chronologically records actual on-and-off time by duration.

Gives absolute time-study data per operation.

Establishes true cost accounting.

Permits supervision of parts replacement, repairs, maintenance.

Gives total operating time of machine, feed or belt-line.

Allows ability to anticipate equipment servicing.

STANDARD INSTRUMENT CORP.
DIVISION OF HEAT-TIMER CORPORATION
657 BROADWAY • NEW YORK 12, N. Y.

MOLDING AND ENGRAVING RUBBER

at these convenient *refrigerated* sources of supply

Molding and engraving rubber from "U. S." assures the finest printing results. Why? Because "U. S." grows its own natural rubber, compounds its own synthetic rubber and has complete control of manufacture all the way. It has the vast resources, the experience, and the skilled technical staffs.

Get always fresh "U. S." rubber from any of our distributor's, Williamson & Co., four refrigerated stocking plants.

Caldwell, New Jersey • Bryan, Ohio
San Francisco, Calif. • Grimsby, Ont.
or contact us direct at Providence, R. I.

Mechanical Goods Division
United States Rubber

for results...

call on "classified"

FOR HELP WANTED
TO BUY OR SELL USED EQUIPMENT
TO FIND A JOB
TO DISPOSE OF SURPLUS STOCKS
FOR ESTABLISHING BUSINESS CONNECTIONS

Time and again, individuals and companies in the packaging field have found solutions to their difficulties by advertising in the Classified Advertising section of MODERN PACKAGING. Here, the buyer and the seller have a chance to meet, the prospective employer and the prospective employee get an opportunity to look each other over, the manufacturer can shed his surplus materials or buy up someone else's.

Rates are most reasonable. It costs but a few dollars to put your message before the entire "packaging-minded" audience of MODERN PACKAGING. Just refer to CLASSIFIED ADVERTISEMENTS in the magazine for rates. Then . . . call on "classified."

ABP ABC

MODERN PACKAGING

A BRESKIN PUBLICATION

575 MADISON AVENUE, NEW YORK 22, N. Y.

Daggett & Ramsdell, Inc., "creators of perfect beauty preparations," chose Scott closures for the perfect plastic cap to "top" off their *French Lilac Toilet Water!*

For beauty . . . for sell-ability . . . for eye-appeal . . . leading manufacturers turn to Scott Engineering for their products crowning glory. Custom closures by Scott are produced by the millions, flawlessly, economically and speedily!

Give a boost to your sales—investigate Scott . . . it may be the thrifty thing to do!

Standard Closures . . . many sizes . . . any color . . . fast delivery. Write on Company Letterhead for "standard" closure samples and prices.

Send today for the full color brochure

Scott Plastics

410 WINDSOR STREET
HARTFORD 5, CONN.

Coupon-printed bags

A novel premium idea is the coupon which Chase Bag Co., Chicago, is printing on the back of polyethylene bags for produce and citrus. Housewives who buy produce in these bags simply clip the coupon, mail it to Chase with a small remittance to receive a variety of kitchen specialties—potholders, appliance covers, aprons, barbecue mitts, etc., made by Chase of vinyl or cloth. Chase Bag handles all the details including processing the coupon and cash sent for the premiums. The shipper, terminal packer, wholesaler or retailer has nothing to do except to order their supplies of bags with the coupon printed on the back.

Cathode irradiation

[*Continued from page 148*]

wave lengths were assumed. Such absorption might be attributed to C=C bonds.

The pH of irradiated samples was decreased significantly after irradiation.

Samples of 50% aqueous solution of ethylene glycol showed effects similar to those shown by the undiluted ethylene glycol.

Samples of 20% and 5% ethylene glycol irradiated with 2.5 Mev cathode rays had the following changes in their absorption spectra:

1. As in the more concentrated samples, a marked increase in absorption at low wave lengths was observed.

2. The minimum at 248 to 250 mμ, and the maximum at 274 mμ, were extinguished (Fig. 11 and Table VII).

The pH changes were similar to those observed in the more concentrated samples (Table VII).

Conclusions

A consideration of these results gives rise to the following conclusions:

1. Irradiation of some packaging materials in contact with water may cause undesirable changes at levels of 3.5×10^6 rep or higher.

2. These changes appear to be due to effects of radiation on the plasticizer and on the coatings.

3. The conventional types of moistureproof cellophane may have to be modified if they are to be used for the packaging of high moisture-

Make Her Love Your Brand!

When your food products woo shoppers with Western-Waxide *Taste Excitement* wrappers, they kindle a lifelong love affair! *Taste Excitement* scientifically combines colors, brand identification and mouthwatering, full-color serving suggestions. It gives your food products a "package personality" with spur-of-the-moment buy appeal! It provides instant and favorable recognition of your brand. It pays off in profitable *repeat* sales.

Boost *your* sales with *Taste Excitement!* Bring your packaging problems to Western-Waxide, or consult a qualified package designer of your choice.

Increased Sales...by Design!

CROWN ZELLERBACH CORPORATION

WESTERN-WAXIDE SPECIALTY PACKAGING DIVISION

PLANTS AND SALES OFFICES: SAN LEANDRO AND LOS ANGELES, CALIF. • NORTH PORTLAND, ORE. • ST. LOUIS AND KANSAS CITY, MO.
SALES SERVICE OFFICES: Akron • Atlanta • Chicago • Dallas • Denver • Memphis • New York City • Omaha • Salt Lake City • Spokane • Seattle

© CZ-66

content foods processed by irradiation.

4. Work is now in progress to evaluate various cellophanes with different coating compositions and there are indications that these types of cellophane may be suitable for use in irradiation processing.

Acknowledgments

A part of this project was made possible by a grant from E. I. du Pont de Nemours & Co., Inc., for which the authors are appreciative. They also wish to acknowledge the cooperation and data on thiobarbituric acid reaction of glycerol made possible by the kindness of their colleague John Wertheim. To Alan Cornell we are indebted for technical assistance in some of the procedures.

References

1. Bopp, C. D., and Sissman, O., Effects of Radiations on Plastics, ORNL-1373, July, 1953.

2. Clifcorn, L. E., The Food Industry's Attitude Toward Radiation Sterilization, *Nucleonics*, Vol. 13 *(1)*, pp. 39-41 (1955).

3. Karel, M., Aikawa, Y., and Proctor, B. E., WVP by Electric Hygrometer, an Evaluation of Mylar and Saran Films by Modified Apparatus as Developed at M.I.T., MODERN PACKAGING, *28 (8)*, 213-215, 322, 324 (1955).

4. Landrock, A. H., and Proctor, B. E., The Simultaneous Measurement of Oxygen and Carbon Dioxide Permeabilities of Packaging Materials, TAPPI, *35 (6)*, pp. 241-246 (1952).

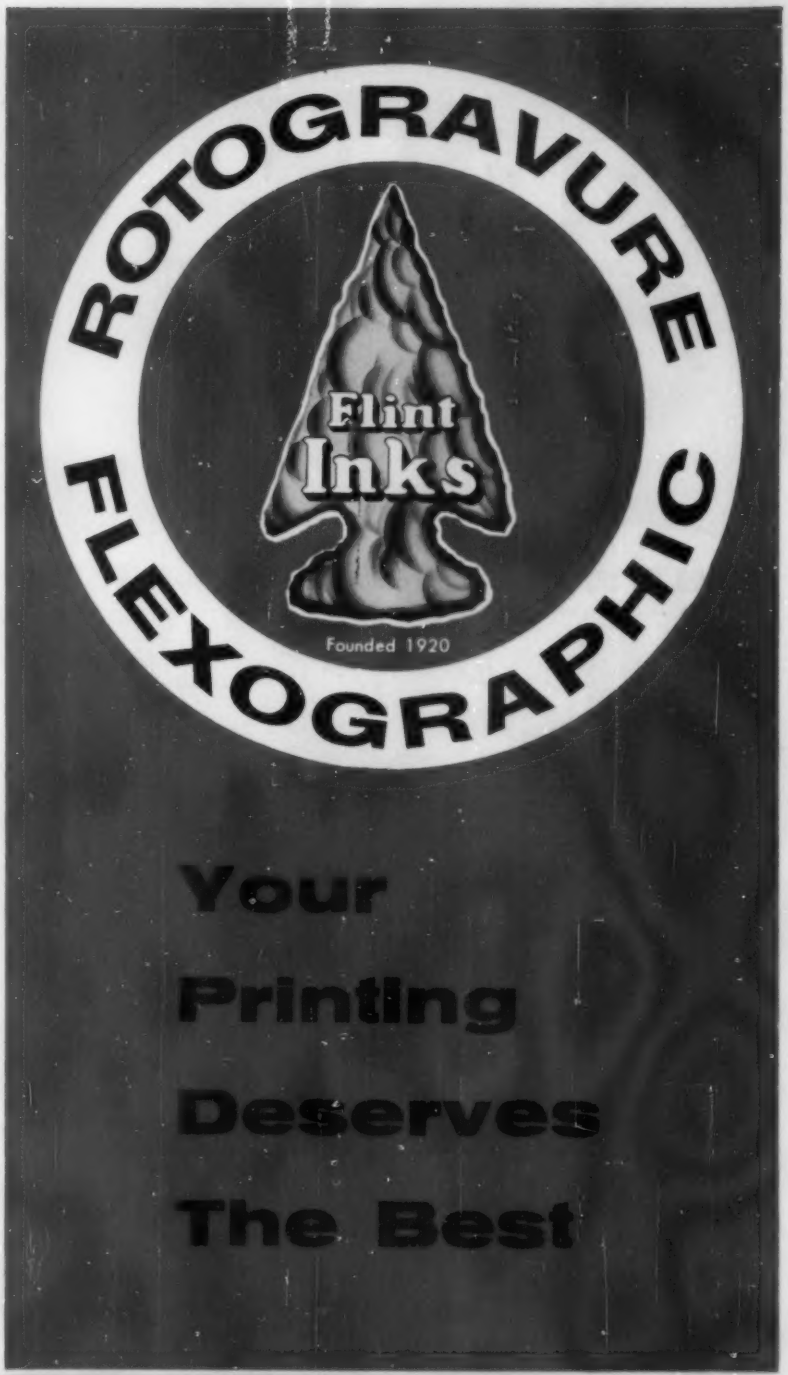
5. Proctor, B. E., Lockhart, E. E., Goldblith, S. A., Grundy, A. V., Tripp, G. E., Karel, M., and Brogle, R. C., The Use of Ionizing Radiations in the Eradication of Insects in Packaged Military Rations, *Food Technology, 8 (12)*, pp. 536-540 (1954).

6. Proctor, B. E., and Karel, M., Effects of Cathode Ray Irradiation, Experiments Show New Sterilization Technique Causes Little Change in Functional Properties of Most Flexible Packaging Materials, MODERN PACKAGING, *8 (6)*, pp. 137-139, 188 (1955).

7. Saeman, J. F., Millett, M. A., and Lawton, E. J., Effect of High Energy Cathode Rays on Cellulose, *Ind. & Eng. Chemistry 44 (12)*, pp. 2848-2852 (1952).

8. Sun, K. H., Effects of Atomic Radiation on High Polymers, MODERN PLASTICS, *32 (1)*, pp. 141-150, 229-232, 236-238 (1954).

9. Trump, J. G., and Van de Graaff, R. J., Irradiation of Biological Materials by High-Energy Roentgen Rays and Cathode Rays, *J. Appl. Phys., 19*, pp. 599-604 (1948).



RESiNA
CAPPERS

a model for every purpose . . . a speed for every need!

NEW! INNERSEALER

Tops them all

RESiNA

Automatic innerseal machine for selecting and applying standard innerseals to various types and sizes of tin cans as commonly used in the oil industry.

Capacity: 60-120 per minute.
Seals from 7/8" to 1 1/2".

AND SPECIAL MACHINERY

Agents in principal cities throughout the United States and Canada.

Write for descriptive literature

RESiNA

AUTOMATIC MACHINERY CO., INC.

Brooklyn 31, New York

Striped tooth paste

An intriguing packaging novelty is Lever Bros.' collapsible tube that actually prints pink stripes on tooth paste as it is extruded from the orifice. The tooth paste, appropriately called "Stripe," comes out looking—and tasting—very much like peppermint candy.

A tube taken apart shows how it works. The striping, accomplished

with what is reportedly a harmless vegetable coloring, is effected through two simple plastic fitments placed inside the neck and shoulder of the otherwise conventional metal tube.

One fitting is a hollow plastic plug, slightly more than ½ in. long, molded with five lengthwise grooves on the outside, ending in notches at the upper end. The plug is forced part way into the tube nozzle, from the bottom, before filling. A small quantity of the vegetable coloring matter, of paste-like consistency, is then placed in the tube around the outside of the special plug. The coloring matter is held in place by a disk of semi-flexible plastic sheet material, which exactly fits the tube shoulder and has a center hole fitting over the bottom end of the white plug. The tube then is filled in the conventional manner with white tooth paste.

When a tube is squeezed, the white tooth paste extrudes normally through the hollow plug fitment, but as it does so, pressure of the product against the plastic diaphragm forces a bit of the coloring matter up through the groove openings so that five narrow stripes of pink are picked up.

"Stripe" was introduced in San Diego, Calif., and Peoria, Ill., test markets late fall.

Credit: *Tube, fitments and caps by Wheeling Stamping Co., 2116 Water St., Wheeling, W. Va.*

Strike the perfect balance between

PROTECTION AND APPEARANCE!

R.O. Seals have it both ways. They are practical, giving a perfect hermetic seal. They are handsome, with their colourful designs and superb finish. Every seal is tailor-made to suit the individual bottle or jar screw thread rolled by the R.O. sealing machine. Made in three types—with Plain skirt, with Pilferproof perforated security band or with the new SecuRo contra-thread security band. Whichever type you need for your containers, you can be sure that the R.O. is the most distinctive closure for any product.

METAL CLOSURES LTD · WEST BROMWICH · STAFFS

ENGLAND

HAZEL-ATLAS GLASS COMPANY

HAZEL-ATLAS GLASS *joins*

...to bring you the most complete

To the customers of Hazel-Atlas — indeed, to any manufacturer or processor who needs glass packaging—Continental Can extends a warm welcome. For the same skilled designers and craftsmen who have made Hazel-Atlas one of the nation's leading makers of glass containers, are now at your service when you call Continental.

Beyond this, you now have at your disposal the facilities of one of the world's leading makers of containers of all kinds. The Continental Can Company, through its various divisions, provides a wide range of technical services and merchandising assistance. Its research laboratories are nationwide in scope, up-to-the-minute in equip-

CONTINENTAL CAN COMPANY
CONTINENTAL CAN
packaging service in America
ment, and staffed by the foremost experts in successful packaging.
Continental's ever-growing facilities can best be summed up in terms of benefits to you—complete packaging service to meet every packaging need, backed up by assured fast delivery, wherever your plant may be located.
TAILOR-MADE PACKAGE SERVICE

Standard Packaging Corporation keeps costs down... quality up

with low-cost, lightweight, interchangeable

"D-MOUNT"® RUBBER PLATE SLEEVES

Patent Pending

There are six good reasons why Standard Packaging Corporation uses Mosstype "D-MOUNT" Sleeves – 1. "D-MOUNT" Sleeves cost far less than shafted plate cylinders. 2. They retain their concentricity permanently, assuring precision printing results. 3. They take up less storage space. 4. They are easier to handle because of their light weight. 5. They make it practical to keep more jobs standing for future re-runs. 6. They have less tendency to whip when presses run at high speeds.

"D-MOUNT" Sleeves are the remarkable shaftless slip-on printing cylinders made of featherweight alloy metal... specially designed to fit interchangeably on a single shaft. Assembled and disassembled in minutes by unique system that assures centering of shaft in sleeve bore in exactly the same true position every time.

Standard Packaging started using "D-MOUNTS" only a year ago—today over 300 are in use in the company's Clifton, New Jersey plant. Isn't it time for you to investigate the "D-MOUNT" system's advantages?

"D-MOUNT" Sleeves are also available with rubber plates mounted in position... or with vulcanized all-over design.

Write for illustrated "D-MOUNT" bulletin and price list

RUBBER PLATES MOSSTYPE® DESIGN ROLLERS

MOSSTYPE

150 Franklin Turnpike, Waldwick, N. J.

A complete production service for converters and package printers everywhere

Retrospect, prospect

[*Continued from page 93*]

adequately enough by single units.[5]

One of the most effective ways of packaging small items for today's busy stores—particularly if the item has two or more components—is to put it in a polyethylene bag with a paperboard header, and one of the most efficient ways of stocking and displaying such packages is to hang them on wire racks or pegs by a hole punched in the header. The progress of this type of package in housewares, hardwares, toys—almost any product that looks for rack-jobber distribution—was one of the highlights of the year.

From every angle, packagers are concentrating on using shelf and display space more effectively. Heinz's polystyrene "roll rack" for baby foods *(Oct., p. 110)* is an ingenious approach to the problem of orderly product grouping and first-in, first-out selling rotation; the principle should have application to far more than baby foods. Mead Johnson, by a simple change of dimension, now gets 24 of its Pablum cartons in the same shelf area that formerly held only 20 *(July, p. 100)*.

Machinery

It is axiomatic that new types of packaging never make real volume gains until the operation can be backed up with machinery. The progress in this field is both broad and continuous. Even so, certain machinery developments stand out.

Atlantic Refining's new temperature-sensitive fill-control device represents an important advance because it solves a costly overfill problem *(Aug., p. 158)*. Other automatic systems for fill control are under development.

Non-stop label gluing as adopted by Lea & Perrins *(Aug., p. 126)* illustrates the important new machinery trend to the use of the rotary screw-feed principle, found also on the latest variable-speed cartoners.

The heat-transfer method of labeling and the rope-fed adhesive, both previously mentioned in this article, are based on the development of successful new machines.

Recent growth of both aerosol and squeeze-bottle packaging are based

[5] See "Packages for Multi-Unit Merchandising," Modern Packaging *Encyclopedia Issue for 1957*, p. 19.

on mechanical developments eliminating most of the hand operation that formerly restricted their acceptance. The impressive new Bloomfield, N. J., plant of the Mennen Co. incorporates the latest in both types of packaging. The Mennen aerosol line was reviewed in January *(p. 109)*.

Perhaps the most significant event of the year for the entire packaging-machinery industry was the successful staging of the first Packaging Machinery & Materials Exposition *(Oct., p. 153)*. The show was an evidence of the industry's belief that packaging machinery has grown to the point where it can be studied most effectively in a separate exposition where nothing but machines and the related materials to be run on them are displayed and demonstrated. Visitors and exhibitors both liked the idea as presented at Cleveland, with the result that the show has now been placed on a biennial basis, with the next event scheduled for the spring of 1958 at Atlantic City.

Generally, considering the wide variety and deep impact of packaging developments in 1956, it would seem too much to expect that 1957 could match the pace. Yet, such is the momentum of this dynamic field, it is altogether likely the next 12 months will bring another bumper crop of milestones.

Non-stick silicone

Asphalt for pipe-covering is kept from sticking to 50-lb. containers by a *semi*-organic silicone coating. Leonard Refineries, Alma, Mich. simply

fog coats the cans with a spray gun just before filling the asphalt at 500 deg. F. Customers merely slash down container to strip it clean. Silicone coating (Dow Corning 1107) by Dow Corning Corp., Midland, Mich.

THERE'S NO LIMIT

TO THE PACKAGING PROBLEMS YOU CAN SOLVE WITH

NIEMAND BROS.

TUBULAR PAPER PACKAGING

For a package that's rugged . . . or attractive . . . or both. If money means nothing or if every penny counts . . . remember, NIEMAND BROS. TUBULAR PAPER PACKAGING can do the job better! Available plain or printed — with decorative papers and with paper, metal or plastic closures.

Illustrated literature showing many interesting tubular package applications, available on request.

NB NIEMAND BROS., INC.

Manufacturers of Paper Tube Products

37-01 Thirty-Fifth Avenue • Long Island City 1, N. Y.

A Niemand Bros. "Packaging Engineer" will be glad to consult with you on your Package problem.

NEW MODEL WITH ADJUSTABLE PACKAGE SIZE

WRAP-ADE UNIT PACKAGER WITH CONVEYOR FEED

PACKAGES ADJUSTABLE WITHIN RANGE OF 1"x2" up to 6"x12"

This manually fed conveyor is the ideal feeding system for packaging small textile products, flat food items, toys, bandages, or any other reasonably flat small product.

OTHER MODELS AVAILABLE FOR LIQUID, TABLETS, POWDERS, etc.

Wrap-Ade Unit Packagers perform an entire cycle of packaging operations including feeding, filling, forming and sealing practically every type of heat sealing materials. Photo Electric registration available.

Send us a sample of your product today for our prompt quotation

wrap-ade MACHINE CO., INC.

Manufacturers of Packaging Machinery for over 20 yrs.

83 VALLEY STREET, BELLEVILLE 9, NEW JERSEY

PHONE—PLYMOUTH 9-6150

MARKEM

solved these marking problems

imprinting bulky, multi-wall bags

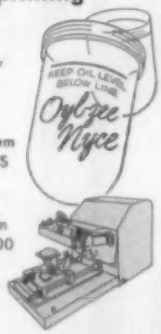
Hand-stamping large, unwieldy shipping bags before filling with raw plastic compounds proved slow, costly and poor in quality. The Markem Method now does it faster and better — using a Markem 25A machine to imprint consecutive lot number, type, color, grade, etc. Quality is excellent, production has doubled.

positive identification of TV tubes by manufacturers

Base branding of TV tubes by the manufacturer — with trademark, code number, etc. — must be clear, durable, fast-drying — and match production rates as well. Markem 52A machines answer all these needs, and add the advantage of marking tubes in cartons, on conveyor lines, even those installed in sets.

screen process printing plastic bowls

After using a slow, costly, spray gun-and-stencil method to mark plastic bowls, the manufacturer began screen printing them with the new Markem 90S machine. Two distinct, durable and fast-drying imprints are now made on each bowl, at rates to 600 per hour. Adjustable gauges handle various bowl sizes.



Let the modern Markem Method make your product identification and decoration economical and attractive. Write Markem Machine Co., Keene 1, N. H.

MARKEM ...TO MAKE YOUR MARK

Packaging's value: $15 billion

[*Continued from page 121*]

currently estimated at $10 billion.

In studying the accompanying table, it should be borne in mind that the figures represent the value of sales, at manufacturer's selling prices, for the items indicated in the selected years, based on data provided by the Bureau of the Census where such values are available from that source. The total only is given for items under the heading "Other Container and Packaging Materials," for which values are estimated, based on information obtained from trade associations and other industry sources. This group represents 16.0% of the aggregate in 1954.

For convenient comparisons, the various container products have been grouped in accordance with the basic material from which they are constructed, i.e., paper, metal, wood, glass and textiles, supplemented by the group called "Other Containers and Packaging Materials."

The percentage gains over the 15-year period since 1939 to 1954 for each of the component product groups, are as follows:

Material product group	*% Gain 1939-1954*
Paper and paperboard	439
Metal	284
Wood	153
Glass	302
Textiles	90
Other	457

In reviewing the percentage gains for the respective material product groups for packaging, it will be noted that those which were well established back in 1939 (such as metal, wood, glass and textiles) show the lower percent of gain. An exception to this generalization is the paper and paperboard group. Here, apparently, technological advances resulted in substantially lower costs and have allowed paper-base containers to open up broad new markets, often in replacement of containers made from other materials. For the 15-year period, the more important growth items in the paper and paperboard area have been:

Corrugated and solid fibre containers	490%
Sanitary food containers	1415%
Paper bags and sacks	554%

All types of containers have benefited from the population growth, which increased from 131 million in 1939 to 164.4 million in 1954, but in the case of paper and paperboard the per capita consumption has also risen from 206 pounds in 1939 to 324 pounds in 1954.

Included under the "Other Containers and Packaging Materials" group are many items which have only come into prominence for packaging in more recent years. Although the sales figures for these items are estimated and therefore not listed individually, many of the individual sales gains are impressive. For example, according to Mr. Clunan, films for packaging show a percentage gain of 490% since 1939 to 1954, aluminum foil for packaging 1014%, cushioning and packing materials 650% and pallets and skids 1067%.

Packaging course

Opening lecture is Feb. 6 for Columbia University's course, GSIE 248 Package Engineering Part II. This course in industrial packaging will be given Wednesdays from 7:10 to 9 p.m., Engineering Bldg., 116 St. and Broadway, New York. Registration is from Feb. 1 to 5. Anyone wishing to complete Columbia's 30-week series may take Part II now and Part I next October.

Guest lecturers assisting Prof. F. C. Winter include J. P. O'Hanlon, Glenn Mather, Paul H. Paulsen, Frank Pocta, A. F. C. Raikes, William E. Huges, Thomas J. Muldoon, John Mount, John W. Nordenson, William Sederlund, Charles A. Southwick, Jr. (Technical Editor of MODERN PACKAGING), Earl W. Stivers, and Frank W. Green.

CORRECTIONS

The device for salvaging underweight containers, described in the Equipment & Materials Dept., page 180 of November MODERN PACKAGING, has a Pyrex cylinder of 230-cc. capacity.

Photos of Barton's Bonbonniere folding boxes were erroneously illustrated as "old" and "new" on page 121 of November MODERN PACKAGING. Photo designated as "old" actually shows base design of new boxes.

BERNARDIN

CLOSURES

...they pay their way on your capping line

because

they speed up production through consistent uniform performance

Since 1881

BERNARDIN BOTTLE CAP CO. INC.

EVANSVILLE, INDIANA

Thinking

Insecticides
47,232,131 Units

Room Deodorants
32,110,180 Units

Other Personal Products
14,220,783 Units

(perfumes, colognes, shampoos, personal deodorants, sun tan oils, hand lotions, etc.)

Paints
7,723,368 Units

Let General Chemical help you get

Here is your shortcut to aerosol marketing:

Capable Contract Fillers

You don't have to invest a cent in plant, special equipment or personnel! There are many capable Contract Fillers throughout the country who will put up your product in aerosol form for test marketing . . . or sustained volume production.

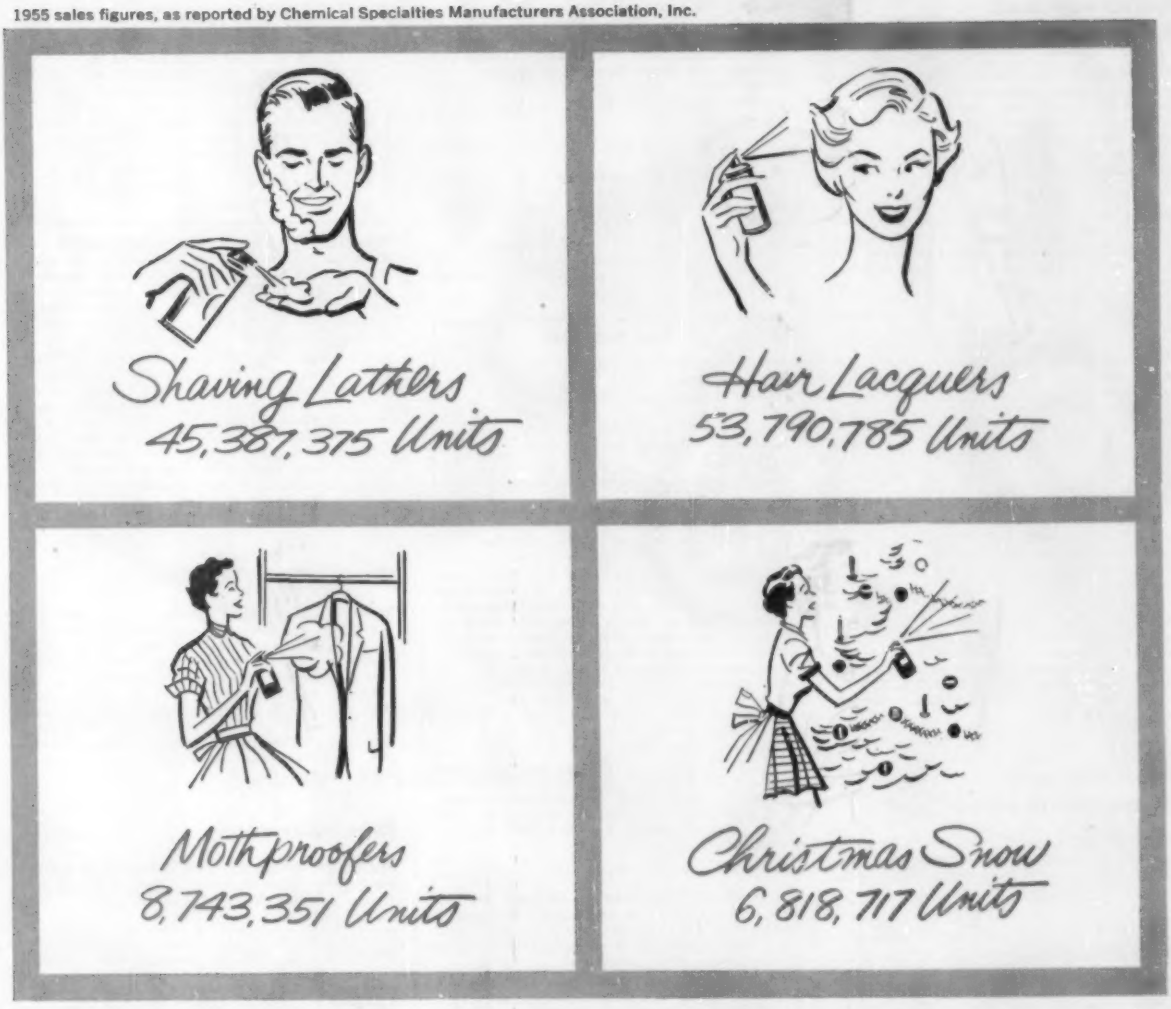
These Contract Fillers offer a wealth of accumulated experience that is invaluable to the new aerosol marketer. And General Chemical stands ready to supplement their service with helpful market data . . . with expert technical assistance in formulating your product in aerosol form . . . and in providing the right propellant for your product.

Here are the right propellants for every aerosol need:

genetron®
AEROSOL PROPELLANTS

About Aerosols?

1955 sales figures, as reported by Chemical Specialties Manufacturers Association, Inc.



into this high-profit field the low-cost way!

First choice of leading contract fillers and aerosol marketers for formulating household, drug, cosmetic, agricultural, industrial and other types of aerosol products, "Genetrons" provide the right pressures, the right compatibilities, for every aerosol product and every type of container.

CALL GENERAL CHEMICAL TODAY! For helpful facts and figures on the aerosol market, including data on many promising new types of aerosols . . . for help in developing the right propellants and formulations for your product—*without cost or obligation!* Ask for our special brochure: "How To Push Up Profits With Aerosols." It contains a list of Contract Fillers who can help you get into aerosols the easy, economical way!

Write to
"Genetron" Department
GENERAL CHEMICAL DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.

Basic Chemicals for American Industry

Classified Advertisements

Employment
Business Opportunities
Used or Resale Equipment

Machinery and Equipment For Sale

FOR SALE—2 only Model "AA" Wagner Automatic taping machines, equipped for top taping of 2 dozen pint cartons and for attachment to Standard Knapp Glueing machines. These units purchased new in August 1954 and were never used. Inspection welcomed. John Labatt Ltd., 150 Simcoe Street, London, Canada.

FOR SALE: 1 Neo Style Celophane bag down closer, Model S4; 2 Triangle Carton Sealers, Model SR2. Attractively priced to move. For details and prices reply Box 581, Modern Packaging.

WORLD'S LARGEST STOCK OF WRAPPERS—Rebuilt and guaranteed. At great saving. All types and sizes of wrapping machines now available for immediate delivery. Pneumatic Scale late style Packaging Unit with Automatic Feeder, Bottom Sealer, Filler, Top Sealer and all interconnecting conveyors. For giant size box. Package Machinery FA2QT Wrapper with Overhead Carriage and Electric Eye. Package Machinery Co. FA, FA2, FA3 and FA4 Wrappers, with and without Electric Eye. Hayssen adjustable Wrappers—3"-7", 5"-11", 7"-13", 7"-17", 9"-19", 12"-24", 15"-25". With and without Electric Eye. For cellophane or wax paper. Heat seal or glue seal. Hudson Sharp Campbell Models 2W6, 2W8 and 2W10 Cellophane Wrappers. Oliver Model 799-J Wrapper. Stokes and Smith Model B Transwrap with Auger Feed and Fin Seal. Jones Automatic Carton Forming and Filling Machine. Standard Knapp 429 Automatic Carton Sealer. Tell Us your Requirements. Write, Wire, Phone Collect. Union Standard Equipment Company, 318-322 Lafayette Street, New York 12, N.Y.

Machinery and Equipment Wanted

WANTED: Used machinery in operative condition to equip small Polyethylene Bag Plant. State age, type and make. Reply Box 577, Modern Packaging.

Help Wanted

PLANT MANAGER—Well established, growing Poly and Cello converter in N.Y.C. seeks factory manager. Excellent career opportunity for man experienced with bag making equipment, flexographic processes and efficient operating procedures. Compensation commensurate with background. Submit resume. Replies held strictly confidential. Reply Box 579, Modern Packaging.

SALESMEN WANTED: Large firm manufacturing Polyethylene bags and drum liners desirous of locating salesmen throughout the United States to handle these products on commission basis. We are also qualified to manufacture protective covers from fabric vinyl or coated materials. Novelty Bias Binding Company, Webster & Spencer Ave., Chelsea 50, Mass.

FLEXIBLE PACKAGING REPRESENTATIVE

We need a Technical Service field representative with sound experience in polyethylene, cellophane or other flexible packaging films. Opportunity exists for growth with top rated, rapidly expanding national manufacturer. Send complete resume and salary requirements. Reply Box 573, Modern Packaging.

PLANT MANAGER—Polyethylene Blown Tubing & Flat Film. Chemical Engineer thoroughly familiar with technique and plant management. Important managerial position with large Eastern Established Producer. Salary open. Experience absolutely essential. Write fully. Reply Box 572, Modern Packaging.

FLEXOGRAPHIC PRINTER: Well established, growing Poly and Cello converter in New York City seeks printer with experience on Flexographic Presses. Excellent opportunity. Compensation commensurate with background. Submit resume. Replies held strictly confidential. Reply Box 580, Modern Packaging.

MAN WANTED

With engineering skill to take charge of packaging made of molded paper. Modern plant loicated in Brooklyn. Mass production. Terrific opportunity. Write in strictest confidence. Puritan Pulp & Paper Co., 251-255 Seventh Street, Brooklyn 15, N. Y.

PACKAGE DESIGN Sales Executive . . . one of the larger package design consultants in the New York vicinity has an opening for a sales executive to solicit nationally known products. He should have the following background and characteristics: A knowledge of merchandising, materials and techniques. Problem-solving ability, creative, imaginative, yet practical. Able to verbalize ideas rapidly whether oral or written. Ability to understand motives of others and ti size up complicated human relations situations. Enjoy contact work and find persuading others rewarding. Able to work with sustained concentration and to pay proper attention to both details and the overall aspects of the job. An effective organizer and administrator able to grow into a position of top level responsibility and decision making. Our staff knows of this ad. Replies will be held in strict confidence. Box 583, Modern Packaging.

CAREER OPPORTUNITIES in sales are offered by AAA-1 manufacturer of flexible packaging. We have an opening in Metropolitan New York for a salesman of printed Polyethylene Bags. Also two additional opportunities—in New Englaind and the South Atlantic States—for salesmen for our diversified line of paper and Polyethylene Bags. Prior experience in these fields highly desirable. Write in detail about your background. Salaries commensurate with experience and ability, but give us an idea as to your requirements. Reply Box 582, Modern Packaging.

We are interested in employing two salesmen, age 27-45, for our Paper Coatings Division, selling decorative and functional coatings in Eastern and Midwestern territories. Chemical, paper, or allied sales experience required. Salary and expenses. Write Manager, Paper Coatings Division, Jones-Dabney Company, Newark 5, New Jersey, giving details of experience and salary requirements.

UNUSUAL OPPORTUNITY FOR ADVERTISING MANAGER OR ASSISTANT MANAGER

Large producer of packaging materials requires well grounded creative advertising man, familiar all phases of advertising and promotion. Metropolitan New York location. Age to 40, salary open. Our advertising employees have been advised of this ad. Send resume (mark "Confidential" if so desired). Reply Box 584, Modern Packaging.

WANTED — SALES REPRESENTATIVES — Printers, designers and converters of top notch flexible packaging, New York organization, leader in field, recent winner of 5 awards N.F.P.A. competition . . . Desires representatives all territories . . . Must be experienced brokers or packaging reps with following . . . Will accept men who handle allied lines . . . Complete facilities available for Flexographic Printing . . . 6 color presses . . . Manufacture bags, pouches, wraps, sheets, in foil, Cello, Poly, or other material . . . Staffed to deliver the goods from art, design, plates to finished job. Write details and territory desired on firm stationery . . . Our men know of this ad. Reply Box 576, Modern Packaging.

Situations Wanted

DESIGN DIRECTOR: Labels, folding cartons —with 16 years varied experience in design and development handling food, drug and cosmetic accounts. Have worked closely with plant, sales and management personnel. Am package engineer, color B & W artist, age 43, married. Would prefer to locate within 20-mile radius of N.Y.C. Have most excellent business and personal references. Reply Box 578, Modern Packaging.

Miscellaneous

WANTED: Following back issue of Modern Packaging: 1943, Vol. XVII, Nos. 3, 7 and 9. Reply Box 574, Modern Packaging.

PLASTICS FACTORY looking for liquid packaging machinery representation. Send propositions to Tapones Plásticos.-Poniente 146 #725.-Industrial Vallejo.-Mexico, D.F.

EXCLUSIVE LICENSE Available For Revolutionary Packaging Method. Patented method of producing an extremely economical container for any refrigerated product. Ideal for marketing food products, such as ice cream, Jell-o, salads etc., in attractively shaped servings (individual or bulk). May also be used for liquids. By this method containers would be made and filled in a continuous operation in processor's plant. This is a revolutionary method of packaging: nothing like it on the market. Exclusive license available to progressive manufacturer of packaging machinery. Reply Box 575, Modern Packaging.

All classified advertisements payable in advance of publication
Closing date: 10th of preceding month, e.g., Jan. 10 for February issue

Up to 60 words $10.00	Up to 120 words $20.00	Up to 180 words $30.00
Up to 60 words (boxed) $20.00	Up to 120 words (boxed) $40.00	Up to 180 words (boxed) $60.00

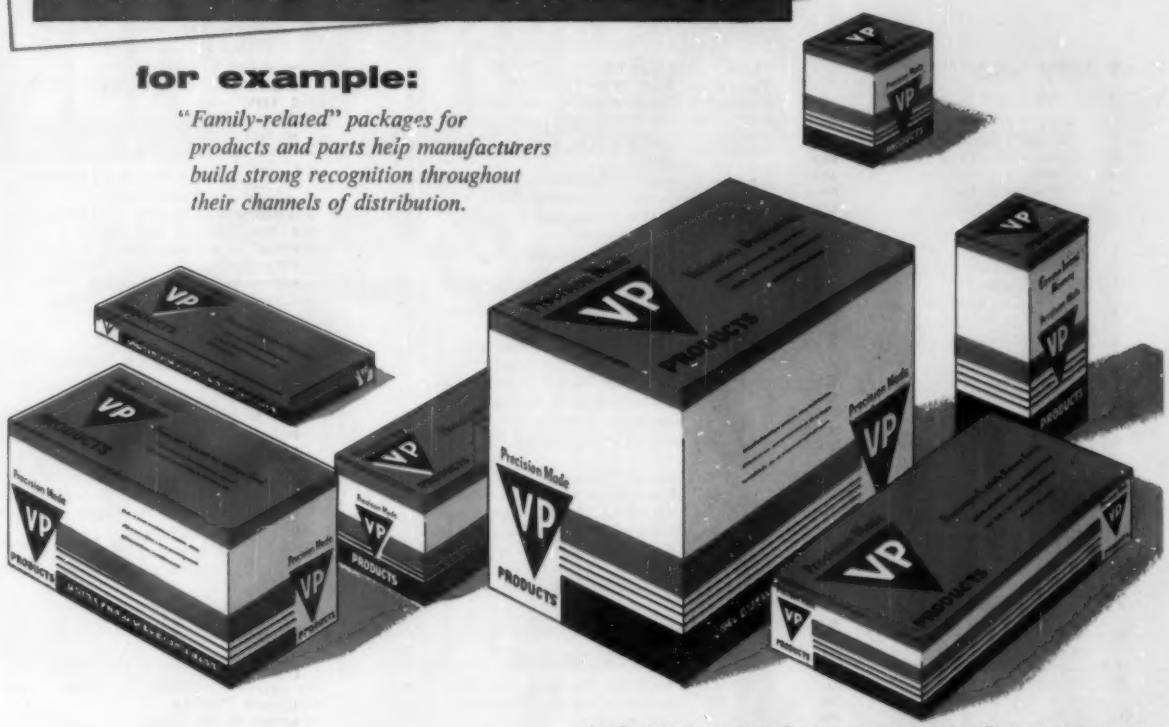
For further information address Classified Advertising Department, Modern Packaging, 575 Madison Avenue, N. Y. 22, N. Y.

Modern Packaging reserves the right to accept, reject or censor classified copy.

CARTONS IN ACTION!

for example:

"Family-related" packages for products and parts help manufacturers build strong recognition throughout their channels of distribution.



Ideas that create new marketing concepts

Carton ideas that will be the talk of the trade tomorrow are on Gaylord drawing boards today. They'll play a vital part in solving sales problems and stimulating merchandising campaigns. Furthermore, you'll find that these new Gaylord carton ideas are as practical as they are ingenious . . . engineered for fast, efficient packing, reliable protection and long-lasting good looks.

For the freshest carton ideas in your field . . . and for assistance with your specific problems . . . call your nearby Gaylord sales office today.

Gaylord Boxes

GAYLORD CONTAINER CORPORATION · ST. LOUIS

DIVISION OF CROWN ZELLERBACH CORPORATION

FOLDING CARTONS • CORRUGATED AND SOLID FIBRE BOXES • KRAFT BAGS AND SACKS • KRAFT PAPER AND SPECIALTIES

Index to Advertisers

January 1957

59 Allen Hollander Co.
214, 215 Allied Chemical & Dye Corporation, General Chemical Division
162 Aluminum Company of America Collapsible Tube Division
67 Aluminum Foils, Inc.
149 American Flange & Manufacturing Co., Inc.
79 American Rondo Corporation
159 Amsco Packaging Machinery, Inc.
50 Anchor Hocking Glass Corporation
36 Arkell and Smiths
10 Armstrong Cork Company
54 Auto Wrappers (Norwich) Ltd.

131-134 Bakelite Company, A Division of Union Carbide and Carbon Corporation
78 Baldwin-Lima-Hamilton Corp.
82 Bartelt Engineering Co.
168 Battle Creek Packaging Machines, Inc.
61 Bensing Bros. and Deeney
55 Berlex Carton Co., Inc.
213 Bernardin Bottle Cap Company, Inc.
20 Bingham Brothers Company
169 Bostitch
200 Bradley Container Corporation
81 British Cellophane Limited
194 Burnet Company, The
129 Burt, F. N. Company, Inc.

183 Cameo Die and Label Company
198 Carey Press Corporation
83 Celanese Corporation of America, Plastics Division
32 Cellu-Craft Products Corporation
174 Ceragraphic, Inc.
72 Champlain Company, Inc.
57 Chem-Pack Inc.
21 Cheslam Corporation, Division of Chester Packaging Products Corp.
216 Classified
31 Cleveland Container Company, The
56 Cochran Foil Company Incorporated
60 Conapac Corporation, Wal-Gan Division
170 Consolidated Packaging Machinery Corp.
18 Container Equipment Corporation
Continental Can Company
208, 209 Hazel-Atlas Division
1 Proprietary Cans
Back Cover Shellmar Betner Division
198 Crescent Ink & Color Company
203 Crown Zellerbach Corporation, Western-Waxide Specialty Packaging Division

48 Dixie Wax Paper Company
5 Dobeckman Company
157 Dow Corning Corporation
62 Dusenbery, John, Co., Inc.

161 Eastman Kodak Company
46 Ekco-Alcoa Containers Inc.
172 Elgin Manufacturing Company
47 Ever Ready Label Corporation

205 Flint, Howard, Ink Co.
136 Fluid Chemical Company Inc.

181 Food Machinery and Chemical Corporation, Canning Machinery Division
178 Fry, George H., Company

84, 85 Gardner Board and Carton Co., The
217 Gaylord Container Corporation
214, 215 General Chemical Division, Allied Chemical & Dye Corporation
182 General Corrugated Machinery Company, Inc.
7 Gering Products, Inc.
15 Gibbs Automatic Moulding Corporation
173 Gilman Paper Company
197 Globe Ticket Company
19 Goodyear Tire & Rubber Co., The Packaging Films Dept.
164 Gottscho, Adolph, Inc.
26 Growers Container Corporation

6 Harcord Manufacturing Co., Inc.
208, 209 Hazel-Atlas Glass Division, Continental Can Company
184 Heinrich, H. H., Company
165 Hinde & Dauch

197 Industrial Marking Equipment Company, Inc.
172 Injection Molders Supply Company
157 Inman Manufacturing Co., Inc.
22 Inta-Roto Machine Co., Inc. The
182 Intercontinental Dynamics Corporation
176 International Filling Machine Corporation
157 Island Equipment Corp.

151 J. E. Plastics Mfg. Corp.
171 Jones & Laughlin Steel Corp., Container Division

64 Kaiser Aluminum & Chemical Sales, Inc., Foil Kraft Division
179 Kehr Products Company
195 Kennedy Car Liner and Bag Co., Inc.
30 Kidder Press Co., Inc.
28, 29 Kimberly-Clark Corporation
74 Kleen-Stik Products, Inc.

16, 17 Lassiter Corporation
182 LectrOmatic Devices, Inc.
197 Lermer Plastics, Inc.

212 Markem Machine Co.
189 Maryland Glass Corp.
192 McCutcheon Bros. & Quality, Inc.
177 Mercury Engineering Corporation
151 Mercury Heat Sealing Equipment Co.
207 Metal Closures Ltd.
Inside Back Cover Michigan Carton Co.
167 Milprint Inc.
23 Minnesota Mining and Manufacturing Co.
210 Mosstype

86 Nashua Corporation
9 National Can Corporation
Inside Front Cover National Starch Products Inc.
69 New Jersey Machine Corporation
211 Niemand Bros., Inc.

66 Oil Equipment Laboratories, Inc.
147 Olin Mathieson Chemical Corp. Film Division
199 Oneida Paper Products, Inc.
124, 125 Owens-Illinois

187 Package Machinery Company
41-43 Package Products
174 Packaging Industries
191 Paisley Products, Inc.
65 Paper Machinery & Research, Inc.
198 Paper Package Company
27 Peerless Tube Company
220 Permacel Tape Corporation, Johnson & Johnson Company
169 Peter Partition Corp.
192 Peters Machinery Company
178 Plastic Jewel Co., Inc.
183 Plas-Ties Company
194 Plastofilm Inc.
159 Plax Distributors
53 Pneumatic Scale Corp., Ltd.
195 Potdevin Machine Co.
33 Potter & Johnston Co., Subsidiary Pratt & Whitney Co.

76 R. C. Can Company
3 Redington, F. B., Co.
206 Resina Automatic Machinery Co., Inc.
12, 13 Reynolds Metals Company
75 Rhinelander Paper Company, Subsidiary of St. Regis Paper Company
8 Riegel Paper Corporation
24 Risdon Manufacturing Company, The
77 Rotogravure Packaging Inc.
51 Rowell, E. N., Co., Inc.

38, 39 St. Regis Paper Company
45 Schultz Engineering Corp.
202 Scott Plastics
190 Seal Spout Corp.
49 Sefton Fibre Can Company
Back Cover Shellmar-Betner Division Continental Can Co.
195 Simco Company, The
52 Simplex Packaging Machinery, Division Food Machinery & Chemical Corp.
34 Sinclair and Valentine Co.
201 Standard Instrument Corp.
219 Steigerwald, A. M., Co.
80 Stokes & Smith Co.
58 Stone Container Corp.
196 Stull Engraving Company

70 Taber Instrument Corporation
11 Tri-State Plastic Molding Co.
44 Tupper Corporation

131-134 Union Carbide and Carbon Corporation, Bakelite Company
155 United Shoe Machinery Corp.
193 U. S. Automatic Box Machinery Co., Inc.
201 United States Rubber Company Mechanical Goods Division

71 Venesta Ltd.
192 Verner, B., & Co., Inc.
152, 153 Visking Corporation, The

60 Wal-Gan Division of Conapac Corporation
73 Warren, S. D., Company
35 Waxed Paper Merchandising Council, Inc.
203 Western-Waxide Specialty Packaging Division, Crown Zellerbach Corporation
175 Wheeling Stamping Co.
151 Wilsolite Corp.
63 Wirz, A. H., Inc.
211 Wrap-Ade Machine Co., Inc.
25 Wright Machinery Company

STEIGERWALD

SENSI-STICK

LABELS

Pressure Sensitive

NO WATER!

NO GLUE!

Easy as 1, 2 to Apply!

STICK TIGHT!

PERMANENT OR REMOVABLE

NO CLEANUP!

Easy to Apply . . . Sure to Stick!

Gone is the glue pot! Gone is water! Steigerwald Sensi-Stick pressure sensitive labels eliminate forever old-fashioned start-up and clean-up labeling machine jobs.

Sensi-Stick simplifies labeling to a 1, 2—pick and stick quick way—Individual labels or Dispenser automatically feeds individual labels on a tape ready for rapid application.

Economical — Faster
Better for all surfaces

Steigerwald Sensi-Stick labels hold securely on all surfaces —won't buckle, curl or rub off even where others fail and nothing else will hold—choice of permanent or easy-to-take-off, surface safe adhesives.

Beautiful designs

Reproduce your present label just as it is on Sensi-Stick or consider a new design with a choice of gold or silver foil; embossed; lustrous papers and sparkling inks to add an extra note of quality to your product. Use Sensi-Stick to show you the way to the world's fastest hand labeling operation.

Phone . . . Wire . . . or Write Today!

CINCINNATI, OHIO
A. C. Stollmaier
Stollmaier & Son, Inc.
Marlemont Center Bldg.
BRamble 1-0222

CLEVELAND, OHIO
A. C. and J. S. Foster
310 Hippodrome Bldg.
Cherry 1-2468

DETROIT, MICHIGAN
Harry W. Hogg
18450 Livernois Ave.
University 2-2144

KANSAS CITY, MO.
A. B. Mason
905 Jefferson St.
Victor 2-6580

LOUISVILLE, KY.
Practical Products
Joe Hermann
319 W. Jefferson St.
Wabash 1257

MEMPHIS, TENN.
Edward Magnus
746 Alabama Ave.
Jackson 6-2574

MILWAUKEE, WIS.
H. C. Lackowski
8849 S. 76th Street
Garden 5-5850

MINNEAPOLIS, MINN.
J. E. and J. L. Moor
3329 Dupont Ave., So.
Taylor 4-5309

NEW YORK, N. Y.
John H. McLaren
500 West 111th St.
Monument 2-0237

ST. LOUIS, MO.
Marvin Yates Company
Clayton Forsyth Bldg.
8230 Forsyth Ave.
Parkview 6-0572

TAMPA, FLORIDA
R. J. Blakeslee
P. O. Box 1851
Phone 8-2076

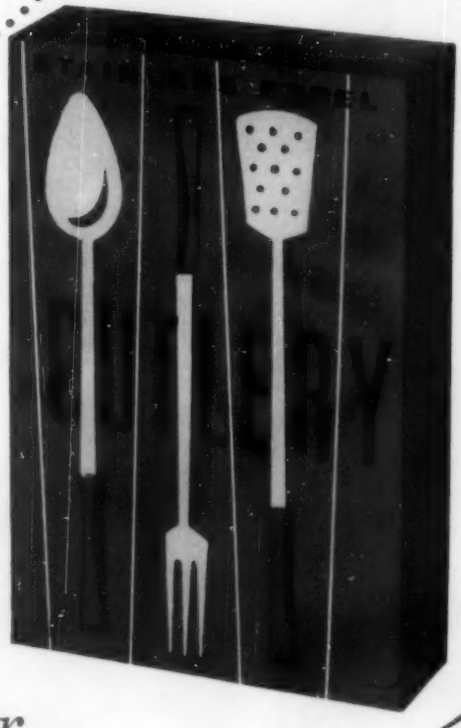
A. M. STEIGERWALD CO.

910 W. Van Buren Street
Chicago 7, Illinois
TAylor 9-5400

PERMACEL TAPE

CORPORATION, NEW BRUNSWICK, NEW JERSEY
a Johnson-Johnson company

Selling cutlery?



Then remember...

...America reaches for MICHIGAN Cartons!

and you can rely on helpful personal service from your Michigan Carton salesman

MICHIGAN CARTON CO. / BATTLE CREEK, MICHIGAN

IF IT'S A FLEXIBLE DAIRY PACKAGE—WE MAKE IT!

TRANSPARENT

LAMINATION

POLYETHYLENE

PAPER

cheese to please

in a bright, neat Cello-Poly pouch

You'll make more sales when you "glamor-wrap" your dairy products. Cheese, powdered milk, butter, cream cheese—take on a new personality in a Shellmar-Betner flexible package. Whether it's cello-poly pouch or shimmering Bencoseal foil, we have the packaging skill and printing craftsmanship to make your product a stand out on the market shelf. Let us design a package for you—and then watch the sales results. Call Shellmar-Betner and let's talk it over.

TMP*—*the new science of salesmanship in packaging*

TMP* means "Tailor-Made Packaging"—the kind that strikes the eye, makes customers buy. Whether it's film, foil or paper, we create packages with built-in sales appeal. You'll sell your products best, with TMP.

CONTINENTAL CAN COMPANY

SHELLMAR-BETNER DIVISION

QUALITY PRINTERS AND CONVERTERS OF FLEXIBLE PACKAGING MATERIALS